

# SEQUENCE LISTING

<110> Sun, Yongming  
 Recipon, Herve  
 Ghosh, Malavika  
 Liu, Chenghua

<120> Compositions and Methods Relating to Colon Specific  
 Genes and Proteins

<130> DEX-0255

<140>

<141>

<150> 60/244,758

<151> 2000-10-31

<160> 176

<170> PatentIn Ver. 2.1

<210> 1

<211> 108

<212> DNA

<213> Homo sapiens

<400> 1

aatctcctta gatgctacta catgacattg attggcatct gatgtctatc tgattatcag 60  
 gaatttacag ttctcagtttc caaagaacta tatgaaaaaa ctattata 108

<210> 2

<211> 295

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (88)

<223> a, c, g or t

<220>

<221> unsure

<222> (128)

<223> a, c, g or t

<220>

<221> unsure  
<222> (134)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (171)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (177)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (186)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (189)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (195)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (227)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (248)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (255)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (290)  
<223> a, c, g or t

<400> 2

```
ttcattccat atgtgagcat gcttaagctc cctggaagaa ccatctgaaa tgtagtaaaa 60
caattaatga gaaaagaaca ggattganat tagctgtagg atagctcaga ggaaagaaga 120
ctcactantt cagnatgtac gagtactagc taaagtaagc agagaagaac ncacttnatc 180
ttcttnganc actgngnctt tttactgggc ccttaccctc accctgnata gttacattgg 240
cctctctngg tggantaatt tcccttaaga aaacagaagc tattttaacn aagcc 295
```

<210> 3

<211> 153

<212> DNA

<213> Homo sapiens

<400> 3

```
aagaaaatga aaaggcaagt aaaagttggg aaaagtatta ataataaata tgtccagtaa 60
aggacttgca tgcaaaacac ataatgaact tctacaataa tagagagaca gacaactcaa 120
aaataggcaa aagttttaag tgtacatgaa gcg 153
```

<210> 4

<211> 236

<212> DNA

<213> Homo sapiens

<400> 4

```
gaaagatgct ttatgaatct ttatatgaat cttccttctg ctgttagggt tagtagagca 60
accccttaa tactactatt tctggcgctt tgattagtgt cttgttgga ttgtcaaaat 120
atctaaaaat tttataaaaa tagaacctta aaggagagaa aatcacaccg tgagcccaag 180
agaactccaa acactcacca acatggggac caaggcacct gattattatg tattga 236
```

<210> 5

<211> 719

<212> DNA

<213> Homo sapiens

<400> 5

```
gcaacaacct gaggggaactg atttataatc agttgctaag gtggaaaact tgactttaat 60
aatgtatatg cagaaagaaa tgctttgctt agttgctttc tgcttatctt taagactttc 120
acactcttct tgtttttttg ttgtcattat taatataaccg ttttgaaata cagaaggctc 180
aaattactaa cactacagat agcagttgtg gcaaataaaa ataagacaga gtgaaactct 240
taatcacata gctgttttct gagatttaaa ttgccactgt cactgttgag tctgatttta 300
aatgggttct agcagttctc tctacttctc tctttccatc cttgctcttt attaaacagt 360
atttgatgcc tataatatga taacccttca acttaatttt tggaagggtg cagaacaaat 420
gaggaaatct ttgtttgtaa tgtataaacc atttggtacc tgcaactgaa agacaatgaa 480
attgattatt atccaggcat gactgtggct tatttaaact agatactttc tcttttcagc 540
tgctgaagat acttgcaatc acctgtggct tttgtattgg tagatacatc caagaaaata 600
```

ttgacttgaa aaaaattgtg cttagagccc tgatctggac attttaaatt cacttaaatt 660  
gttttaaaaa ttgtgatata ttaatgaaat ttttattttc taactaatta tgaaccttt 719

<210> 6  
<211> 687  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (185)..(330)  
<223> a, c, g or t

<400> 6  
gtccaaatta ccaccactc ctgagggacc caggggacca gaagtcctcg tcagtccatc 60  
acagccatt ctgcccctct gctgtcctca ccagcctcgt ggagaccaa aatggctctc 120  
ttctaggaga ggctaggggg aagggcagag gagctagggt actagcacag agctcaagcc 180  
tgatnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nggagatgga gtttataagg caccagacc 360  
agtgtctgat gtccaactca acttggcaat gacgggggac acatctcctt gtttattttt 420  
atgtttattt attttttttt aatggagtct tgctctggtt gcactccagc ctgggtgaca 480  
cgacgtgaga ctctgtctca aaaacagact taaaaccctt taaaagtgtg tgataaacat 540  
cagcttgaca aatatgaacc cagcaccctg gaagcactgg cactatgctg ggtgctgagg 600  
gagatggcat gaacagaaaa gagagacaca ggcccaagga gggaagtcca gtgtttggtg 660  
ggagatgggg atgttaacaa tcacaca 687

<210> 7  
<211> 475  
<212> DNA  
<213> Homo sapiens

<400> 7  
ttttggtgag ccagccagga gtgaagacga caggtttgct gtctcctttg cctgtgggtc 60  
tggggccccca gcttggggga gaccctgtgac tccaggcatg ctatcaggac aacttcaacc 120  
cgaggggaga tcagctctcc cgcaacctgg tgccgctctc tgacagcaca acagaacctt 180  
aggggctaca ggatgattca aggaacagtg tgctacagga cctcggtatt cctgctgaga 240  
gtcatttcct gtgctggatt taccatcaca gggaccagat ttatagaaaa atgaacatgt 300  
attgttgcta aatggagtgt gtcatggagt ggaaactaac aatatgttca cctaaatgtg 360  
ctacaaccac tcaaggtctg caaacagatt cctattttaga tggtgttgag agctgaattt 420  
ctggaacaag agatatagat taagactggt gttacatggt gcctacatga ctttc 475

<210> 8  
<211> 521  
<212> DNA

<213> Homo sapiens

<400> 8

```
ttttggtgag ccagccagga gtgaagacga caggtttgct gtctcctttg cctgtgggtc 60
tggggccccca gcctggggga gaccctgtgac tccaggcatg ctatcaggac aacttcaacc 120
cgaggggaga tcagctctcc cgcaacctgg tgccgctctc tgacagcaca acagaacctt 180
aggggctaca ggatgattca aggaacagtg tgctacagga cctcgggtatt cctgctgaga 240
gtcatttcct gtgctggatt taccatcaca gggaccagat ttatagaaaa atgaacatgt 300
attgttgcta aatggagttg gtcattggagt ggaaactaac aatatgttca cctaaatgtg 360
ctacaaccac tcaaggtctg caaacagatt cctattttaga tggttggtgag agctgaattt 420
ctggaacaag agatatagat taagactggt gttacatggt gcctacatga cttttcaaaa 480
gcttgattcc cagtggcgct ctcaacagca gtcataaaac a 521
```

<210> 9

<211> 743

<212> DNA

<213> Homo sapiens

<400> 9

```
gaaatttatg aggctacaag aatggtgaaa tgagatcagt cagtcaagtg tggaggaaaag 60
taattacggc tggaaaagat ttaaactatt agaatagaga agactggatt agagaatatt 120
aatattctag aaaataacaa gcttatgaca ggaatactat atcagagtca agagaaaaca 180
aaagtatagg taaagactga atttatcata gcccaagaca aggagcagga actgacattt 240
agtcaacagt atttattgag tccctactat gtgtgcaaaa ataaaaaatt aactaagtac 300
tggttaacag ataaagaaat gattatgaaa gctggcaaat aggaagtgag agatgaaact 360
aaagatttag ttttacttgc acactgacct tgcaatttcc ccaatgtaat tttgtctgat 420
ctgagtttg gcaagatata ctgttttttg tacttacagg tattcctgct gagagtcatt 480
tcctgtgctg gatttaccat cacagggacc agatttatag aaaaatgaac atgtattgtt 540
gctaaatgga gttggtcatg gagtggaaac taacaatatg ttcacctgta agtttttaag 600
tgctgtgcca agaaagcctc tttggaggcc attgccataa tctactgttt acatttgtgc 660
atttagtttc cgggaaatat tttttaaaacc taccctagga gctattcaga accatagagg 720
ctatttcagt tcccctatcg act 743
```

<210> 10

<211> 548

<212> DNA

<213> Homo sapiens

<400> 10

```
atgtaaaggc ttaaatcagc acctggacta catatataag gtgatcaata aatatctact 60
ttggtatctg aatgcttcaa gatagccttt tgttcccttc taaaaaagag tgggtagtga 120
ttgttaagac ttaccgctc ataaatgttt tattacatac ttaatatgtg aagctatcaa 180
gtaaggaggt aaggaagtat gttaataggg aagaagatga taaaataccc aaataggaaa 240
ccataatgcc aactttctaa gcttaagctg actgtaacaa agaactggct ttgtaacaaa 300
gaacaagtct tactggcttc atgcaatgca aacatttttt tcttacgtat ctgacagatc 360
aaggtggtca ggtagctctc ctgagcagtt ttccaccatg tggtgattca gggatccaag 420
```

cacattctat caccaggcctt agccatattg gagtttttca cttcgggtgat gaggatgagg 480  
gagaaagtgg gagagagtga aaagagggag aaaggtggaa aaggagagaaa gaaggagaag 540  
gtggaaaag 548

<210> 11  
<211> 797  
<212> DNA  
<213> Homo sapiens

<400> 11  
actggccttag cacttacttc ttggtgtgaa gagctagttc ttccttagag agcccaaact 60  
ctggagccag gtggattgag tgggaatcct agctctgcta aagggacgta cttgcctaag 120  
tctcctcctc agtaaataagg atactagtga taacatcttc atagagttgt catgagaatt 180  
aaatgaataa tatatgtaaa ggcttaaate agcacctgga ctacatatat aagggtgatca 240  
ataaatatct acttttggtat ctgaatgctt caagatagcc ttttgttccc ttctaataaaa 300  
gagtggttag tgattgttaa gacttaccgc ctcataaatg ttttattaca tacttaatat 360  
gtgaagctat caagtaagga ggtaaggaag tatgttaata gggaagaaga tgataaaata 420  
cccaaataagg aaaccataat gccaaacttc taagcttaag ctgactgtaa caaagaactg 480  
gctttgtaac aaagaacaag tcttactggc ttcattgcaat gcaaacattt ttttcttacg 540  
tatctgacag atcaaggtgg tcaggtagct ctctgagca gttttccacc atgtggtgat 600  
tcagggatcc aagcacattc tatcacgagg cttagccata ttggagtttt tcacttcggt 660  
gatgaggatg agggagaaaag tgggagagag tgaaaagagg gagaaagggtg gaaaaggagg 720  
aaagaaggag aagggtggaaa ggagagagag agaaattgag aaagtgagaa aaaaaaaaaa 780  
aaaaaacaaa aaaaaaa 797

<210> 12  
<211> 558  
<212> DNA  
<213> Homo sapiens

<400> 12  
ccatatcttg tttttgacca gtgaagggga aagaaagaaa gtaattctag aacaacctac 60  
tacttacttt agagcttcac ttttatatca tctatatattg acttggaac catctgtgtt 120  
tttgtctttg tggtcagcca ttattgtttg ttttgccatg atatatgtcg gaatgatatt 180  
atttgactct cttttaagta cctcctgctt ctttgagtaa ggagatccta ccagtatcta 240  
acagaaaatc ttgagcttgc agaataacag aaaagaaaaa aaaaacaaaa acacaacttg 300  
ccaaaacact gaaactccct ctacttatga aataaacaaa ctggcttaaa ttgggtggaa 360  
tcattatggc caaatggtgt ttgggcagaa tcaccttgct gaggtcaccg tctgaatttt 420  
cactgcctgt ttcacacaaa ctccccttca gtttgcccat gacatccatg aggaggcaat 480  
gagcttgaga gtaacgtttc agtataaaat ggctttctct taaaaacctg atgtcatagt 540  
atgggctact agcacttc 558

<210> 13  
<211> 596  
<212> DNA

<213> Homo sapiens

<400> 13

```
aaagatgaca tggattagct tcaagtaaca cataatgtgg ctggagtcag ctgatcttta 60
tgctgaaagt gtcaacagta gtgacaaata cttcaagtaa cgggtcaaaa gtctaagaca 120
gtcattctgc cagaaatggg ctgggacttc cccatacatg ggacacgtag atcaactttc 180
tccaagaacc accaacctgg catgcagtga tgacctctgc agtagacagg gatttaggct 240
tgattgttgt tcatctcttt ggagacataa ccctaattgt gaacttctaa attaatggcc 300
tgacaattag atcagcagct aagataaatt tcagtttgca gcccacaaga agatgttctt 360
aattagacag ttaatcattt tcaatatgga agcctaaaca cgtagaatgt ggcaataacc 420
cggaactctc agttctgaca attgagtga gtaatcacc cagattcagg ttcttcattg 480
gctgacaatg agatcaaaca cccacaccag cccagtgaac accatgaggt gtcactttcc 540
tggcccatta gtgaaccagg aacagatatt tagaaaatat tcagtaaatt ggggag 596
```

<210> 14

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 14

```
gtagacattt aagttttaaa tcttgtaaag agaagcagca gagatgcaac ataggctcag 60
actttaagca gctctaattt catggctttc ctgggcctcc accatattgc catagggcct 120
gtcacatgct tatgcacct actggctgca gcagtgcac ctgaagacag ctgagtatag 180
ccatgggcta cttttctagt catgggctgt ggaacctgga acatgtgacc agaataccac 240
tgacctgtg gaccagcaag cctaagttaa aggcagccat catgaggatg aaaaggagac 300
cctcaccagc cagaagggga tgtatggggg aagcagaacc ctattagaga gaaaagccaa 360
caggaatgac tgggaaaaca gcaggagggg acaaaaattg gtgtgccttg gtgacacaaa 420
aaactctggg atgacggagt tgatgacaat cgaggccaaa atcatcttca acatacccta 480
gttctaaagt atgcaactatt ctccccctca gcacagccct ttgggccttt tacacaatgg 540
tgacttctaa tttggtcctt actcagattt tagaactccc aagtaatgtt cccaaatgga 600
tcatattcac gaggagtagt accagtgaat taactgggtc tcaaaataca attgcacatt 660
tcagacactg ctttaaagtt gtgtcctctc attttctcat tctgttcag ttataatagg 720
cagtcttctt cttattcacc aggggattcc atccctctga ttcaggacca tggatatagg 780
aatcgccctg ctttctcacc ttcagcctct cgtgttacag gatccatcct cttagcactt 840
tttttctctt tagtaaaacta ttgctgtgta acacagagaa atactcatag ctctgatcac 900
aaatctgagt cagatgcctc ttgaagaatg gacttctgag gagcaccgta ctcgccccag 960
cacagctctc acacaggagt ttgctgaaag tctcctgcct gtgtgcctcc cagtatgagc 1020
tctgtgaggg ccgtaacccc aggggtataag taactcaact agaatatgtg caatacactt 1080
ctctgtgtcc tgatgttaaa cttaaaatga aata 1114
```

<210> 15

<211> 1185

<212> DNA

<213> Homo sapiens

<400> 15

```

gtagacattt aagtttttaa tcctgtaaag agaagcagca gagatgcaac ataggctcag 60
actttaagca gctctaattt catggctttc ctgggcctcc accatattgc catagggcct 120
gtcacatgct tatgcacctt actggctgca gcagtgcatc ctgaagacag ctacgtatag 180
ccatgggcta cttttctagt catgggctgt ggaacctgga acatgtgacc agaataccac 240
tgacctgtg gaccagcaag cctaagttaa aggcagccat catgaggatg aaaaggagac 300
cctcaccagc cagaagggga tgtatgggtt aagcagaacc ctattagaga gaaaagccaa 360
caggaatgac tgggaaaaca gcaggagggg acaaaaattg gtgtgccttg gtgacacaaa 420
aaactctggg atgacggagt tgatgacaat cgaggccaaa atcatcttca acatacccta 480
gttctaaagt atgcactatt ctccccctca gcacagccct ttgggccttt tacacaatgg 540
tgacttctaa tttggtcctt actcagattt tagaactccc aagtaatgtt cccaaatgga 600
tcatattcac gaggagtagt accagtgaat taactgggtc tcaaaataca attgcacatt 660
tcagacactg ctttaaagtt gtgtcctctc attttctcat tcctgttcag ttataatagg 720
cagtcttcct cttattcacc aggggattcc atccctctga ttcaggacca tggatatagg 780
aatcgccctg ccttctcatc ttcagcctct cgctgtacag gatccatcct cttagcactt 840
tttttctctt tagtaacta ttgctgtgta acacagagaa atactcatag ctctgatcac 900
aaatctgagt cagatgcctc ttgaagaatg gacttctgag gagcaccgta ctgcgccag 960
cacagctctc acacaggagt ttgctgaaag tctcctgcct gtgtgcctcc cagtatgagc 1020
tctgtgaggg ccgtaacccc aggggtataag taactcaact agaatatgtg caatacactt 1080
ctctgtgtcc tgatgttaaa cttaaaatga aatagttttc agaataaaaa taaatttgta 1140
tatattaaaa aaacaaaaaa aaaaaagatc ttaattaag cggac 1185

```

```

<210> 16
<211> 413
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (138)
<223> a, c, g or t

```

```

<220>
<221> unsure
<222> (145)
<223> a, c, g or t

```

```

<220>
<221> unsure
<222> (151)
<223> a, c, g or t

```

```

<400> 16
acaaaatggt tttatgtgtt taggtctgac ggtatgtctt cttattgttg acttttaaat 60
ttattaaatt gtagtttagg agaatgagct aatataatct ctaatagctt agaataattg 120
aagtaattta ttattttnat ttatnattat naccattatt attaacaact ttgtgaacaa 180
aagcatttat ttaaatgttt tatggttatt tgtattctct atttgtagga ttcaaagttt 240
tatattcaac ttattgagat tattatagaa atgagggtata tttgagaggg tcaaatattc 300

```



taaaagaata ttccagacac cacctcctcc agcaacaaaa atagctacaa accaatataa 360  
attcatgtta gttattttca tacatattga aaactttact gtacattaaa agg 413

<210> 17  
<211> 517  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (138)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (145)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (151)  
<223> a, c, g or t

<400> 17  
acaaaatggt tttatgtgtt taggtctgac ggtatgtctt cttattgttg actttttaa 60  
ttattaaatt gtagtttagg agaagtagct aatataatct ctaatagctt agaataattg 120  
aagtaattta ttatttttat ttatnattat naccattatt attaacaact ttgtgaacaa 180  
aagcatttat ttaaagtttt tatgggtatt tgtattctct atttgtagga ttcaaagttt 240  
tatattcaac ttattgagat tattatagaa atgagggtata ttgagaggg tcaaattatc 300  
taaaagaata ttccagacac cacctcctcc agcaacaaaa atagctacaa accaatataa 360  
atttcatgtt agttattttc atacatattg aaaactttac tgtacattaa aagggtgtac 420  
agacagccct ccatatctgt ggggtttcaca tccatgtatt caaccaagca tggatcaaaa 480  
atattcagta aaaaaaaagt cgacgcggcc gccaatt 517

<210> 18  
<211> 502  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (292)  
<223> a, c, g or t

<400> 18  
cacacagaat gcacaaaggc agggctgctc ttttattttg ggtggcgtgg gtggaagtag 60

gcaatggagg	cacagttgtc	aaagccactg	gtctaatacta	actattcttc	tctcttccac	120
tttacagagg	gtgtaacttg	ggccaagaaa	tcgatgatgtg	agtaggtcac	acagtgttga	180
gggccaaaac	cctcgactcc	gttgggagtt	aaaggggagg	aagtggacat	ttcctttgaa	240
cctaataata	agcaggtgag	gttttgtatt	ctcatttttc	acagtgcaag	anaattttgt	300
ttagaaattc	tagttaagtc	atttacccaa	agccctaaag	ccagtaaaca	gcaagtggga	360
atcaaaccce	agtccttga	catgccaaac	cagcttcttt	ccactagacc	accccttccc	420
ccattactgt	aaactccatc	tctccgctgc	tgtcagctcc	ttcttgatcc	gtacagaaat	480
aaaagtttgc	caccaaaaaa	aa				502

<210> 19

<211> 2961

<212> DNA

<213> Homo sapiens

<400> 19

cctgctgctc	ctgggagggg	ctcaggccat	ttgattctgc	ctgggtgggtt	cagggtctgcc	60
tggctagcca	ccaagacacg	ggagagcaaa	gcccggccaa	accagggggc	agtgggtgtcc	120
agcaggcatc	aggacatgcc	gtggcccaca	catgcccttc	tccacaggtg	ccatcatctc	180
ctttcttctc	ctgttagtga	tggcttcatt	ggcctcaggt	gacaccgctt	tctagcccag	240
gccactggat	ccagccagag	cgtctgtgca	tgcgccaggg	gaggtgtggg	gaggctcggc	300
cccacctggc	aagtttatag	gctgcttgag	gacataagat	gggtacagaa	gaggcttcag	360
ggctcagcag	atgttgtgct	gggagtgagc	ccaggcaagg	tggcccatgg	acagaagatg	420
gaaggtcagt	cgtggcctcc	ttccagaagg	aaagagattt	tagcaggaag	agacaggcaa	480
ggaaaggaat	tggtttttca	ggcagagcgg	tactttttta	aattgacaaa	ttttaagcat	540
acagaaaagt	agagaggacg	aacctccaaa	catcagccct	tagattccag	tacatcctgc	600
cttggtagct	gacgtcacga	acgctgtgac	ctgtccctct	gcactccatc	atagcatctc	660
taaaacggag	gacatttctc	acctcagcac	aacttcatta	tcacaaaaga	gaacattttg	720
agcaaaaagt	tggaagcagg	caaaagtatg	gtttgttctg	gaatggcatg	aatgaatgag	780
tcatgggctg	gacccggccc	cgcagaaaga	gcagaggagg	ccgtctctgg	tgtaggagtt	840
gaagccaaga	ctcagcatgc	aggacaagga	gcccagcctg	gtggcatggg	ctgtggcttc	900
tccagtgggc	ccataggaat	ggccctgggg	ctgggacttg	tggggacggc	ggccacaaga	960
ggaggatctt	cagcatggcc	tgacagcacc	tgtaatgtag	gcaggcaatg	ggctcctcca	1020
ggtggcagga	acaccgtgag	gagcatgcaa	cgtgctggag	accatggggc	atgtgacctc	1080
cgggcacacc	ctggacagac	ctgggtgaga	ggtgggctgg	gacgccagga	cagtgaaggg	1140
cttcaagggtg	tgtttgtcct	ttgtccttat	acaggtgacc	tgcattggcg	ggtgaggtcc	1200
atcagaatgc	tctagaacag	gacaactgag	gtcccggtctg	ccccgctcaa	cacgccatga	1260
ttcctagact	gccctgagag	gtcaggtttt	aaatagggtg	tggcccgcca	aggacctga	1320
gggatgtgag	gccagacagc	tccttgggtg	ccgcctgcac	gggaagctga	gtggcccttt	1380
ggaacaggaa	gtgccttgtc	caagttaacc	cgggcccggg	cccaccttgg	actccctctg	1440
gagagaacgg	ctggcctggt	cgcttccttt	ctccttcctt	ccaaaataac	atgtccaggt	1500
cccttggtaa	gaatgctgca	gctgggggtca	gtctccaaac	tggagtttgg	tggctaaaat	1560
gcccgccttt	ctgcccccaa	tttcacacat	ggatgatggt	cctgggttcag	cagggaagat	1620
tctcttggac	ccgtgtctgc	tgggtgggaa	gtggagaaag	ccgcctgtt	ctgcctccat	1680
tttgaacgt	cttttctggt	cggaggacta	aagggaagcca	gagctgggtc	agatgttcat	1740
gagcacctgt	gccagccctt	gcccgtcaca	cttgaggaca	ccaaggctgt	ggtctgtgca	1800
gtgaatcggg	gcagtggggg	gacttcatgg	ttagaaacac	aagctggagg	ccggatgcgg	1860
tggctcatgc	ctgtaatccc	tgcacttttg	gatgcctgag	gtcaggagtt	caagaccagc	1920

ctggccagca	tggtgaaacc	ctgtctctac	taaaaatata	aaataaaaaat	taactgggtg	1980
tgtggcaggc	acctgtaatc	ccagctactt	gggaggctga	ggcaggaaaa	tcacttgaac	2040
ccgggagggtg	gaggttgtag	tgagctgaga	tgcaccatt	gcactccagc	ctgggcaaca	2100
agagtgaacc	tccgtctcaa	aaacaaaaca	aaacaaaaag	tagattctaa	ttcaggagggt	2160
tcggagtgtg	tgcatttcta	atgcgctcca	aggtgctgtt	gctgctgctt	agaaccatca	2220
tttcagtagt	aaggggtctaa	aacaacacga	ctcacaagac	ctcaaccac	cagcccagggt	2280
ggaaaccaat	tcacaaacgt	ctcagtgaat	tgattctgtt	gatgctgggtg	cgcacttcta	2340
catttatgtg	gggaaggagg	tcaggacaga	agttgaggga	cttgggaccc	caaagcagat	2400
aaggttgtgg	ggtgcagatc	ttgctctagg	atcctgaagc	gagtctctgg	aggagggtcag	2460
gcaaaatggg	ggcaaacctt	tatttctgta	cggatcaaga	aggagctgac	agcagcggag	2520
agatggagtt	tacagtaatg	ggggaagggg	tggtctagt	gaaagaagct	ggtttggcat	2580
gtcaagggac	ttgggtttga	ttcccacttg	ctgtttactg	gctttagggtg	tttgggtaaa	2640
tgacttaact	agaatttcta	aacaaaattt	tcttgacttg	tgaaaaatga	gaatacaaaa	2700
cctcacctgc	ttattattag	gttcaaagga	aatgtccact	tcctcccctt	taactcccaa	2760
cggagtcgag	ggttttggcc	ctcaacactg	tgtgacctac	tcacatcacg	atttcttggc	2820
ccaagttaca	ccctctgtaa	agtggaagag	agaagaatag	ttagattaga	ccagtggctt	2880
tgacaactgt	gcctccattg	cctacttcca	cccacgccac	ccaaaataaa	agagcagccc	2940
tgcccttgtg	cattctgtgt	g				2961

<210> 20  
 <211> 653  
 <212> DNA  
 <213> Homo sapiens

gtagaacaga	aagcctccct	gctcactggc	ctttcccctt	ccctcactgg	ctgcccattg	60
agccaggatc	agcatgggaa	caatcaagga	ggcaggggct	tatcagtact	atggacccct	120
acactggctc	tgccctgggtg	ttcttctctt	cgcataccaa	agacagaaat	taagcctcca	180
agagtggtaa	ctgacctcgg	tcacacttgg	tgggtgtggg	aaaggattca	aatgtaggctc	240
tgttctcttc	ttcatctatc	atggctccctg	tcctggaggc	aagtcgtctg	gggctcagaa	300
aacacccctg	ttgccactga	ttggaattcc	aaggggtctg	gtgaagtggg	gatgggcctc	360
cagcttgctc	ccagcctgaa	aaaatagtag	aggggtgtga	ggctgggaag	ggagggtggg	420
ctcatgttgt	acagggcctg	agccaggagg	cttgggcttc	attctgagta	ctgtggcagc	480
cctgggaagg	tttgtagcac	agagggatat	tgtcattttt	ggaaagatcc	ctttggctgc	540
ttaggtagag	aagggcttca	agagggcagg	aaggacaggg	actacagaag	gggctgcttc	600
agagtcagag	ttaaggaagg	agaggcctgg	gcagtcagaa	aggaagagaa	gcc	653

<210> 21  
 <211> 765  
 <212> DNA  
 <213> Homo sapiens

gaacagaaag	cctccctgct	cactggcctt	tccccttccc	tcactggctg	cccatggagc	60
caggatcagc	atgggaacaa	tcaaggaggc	aggggcttat	cagtactatg	gacccttaca	120
ctggctctgc	ctgggtggtc	ttctcttcgc	ataccaaaga	cagaaattaa	gcctccaaga	180

```

gtggtaactg acctcggtca cacttggtgg gtgtgggaaa ggattcaa at gtaggtctgt 240
tctcttcttc atctatcatg gtccctgtcc tggaggcaag tcgtctgggg ctcagaaaac 300
acccctgttg ccaactgattg gaattccaag ggtctgggtg aagtggggat gggcctccag 360
cttgccctcca gcctgaaaaa atagtagagg gtgttgaggc tgggaaggga ggtggggctc 420
atgttgtaca gggcctgagc caggagcctt gggcttcatt ctgagtactg tggcagccct 480
gggaagggtt gtagcacaga gggatattgt catttttgga aagatccctt tggctgctta 540
ggtagagaag ggcttcaaga gggcaggaag ggacaggact acagaagggg ctgcttcaga 600
gtccagatta aggaaggaga ggctgggca gtcagaaagg aagagaagcc ggatgtggtg 660
gcttgatatc tcaatcccag cacttttgag aggccaaagg ggggaggatc actttgagcc 720
caggagtttc aaaaccagc tttggcaaca tagttagact gcttg 765

```

```

<210> 22
<211> 148
<212> DNA
<213> Homo sapiens

```

```

<220>
<221> unsure
<222> (9)
<223> a, c, g or t

```

```

<400> 22
ctcggaaatnc ggctcgagga gaatttttgg agatcccttag tctgctattc ttactgacat 60
tagccttatg ttgttgatag tagtatagaa tagtattcga aatgatgtgg acaattttgt 120
caaatgcttt taagatattg tacatctg 148

```

```

<210> 23
<211> 398
<212> DNA
<213> Homo sapiens

```

```

<400> 23
ctctggacca attattgatt tgcaagttcc tgtgaaatgt tttatcacc agtgtgtttt 60
gtctgtgtac aggaagcact ggatacactg gctagggtgtg tgcttttaag taacattctt 120
ctctgattcc tttccttcaa agtgggagat actggtagca tctacctacc ctgcaaggat 180
ttaatgagtt ttaatgacat gagaaatgct tagatttcag ggatttgact aaacccaaat 240
acctgggcca tatttttagc caggagccag ggaatatttg cactaagcca ctggctgacc 300
caaaacttct ctctttaagt catttagcca aacagcaa at tagggagcca gcagctcatt 360
ttgggggtga tgttttgtat gagaagttgg tgaacctg 398

```

```

<210> 24
<211> 523
<212> DNA
<213> Homo sapiens

```

<400> 24

```
tacaacttta gtttttgtgc tacttaggag agaaaagcag atattgcctt attttgtgtg 60
ccctatccat ttaattagaa gctcaatgaa aatttttatc attatattat cacctctatg 120
tggaatattg ttaaagtgtt tagaaagttt gaaattcatt tttaaatgtg aatcattatt 180
gtttgtgtgg ggggaggaat gtcaagttgg aattatgaat caggctttgc cttaccaagt 240
acttttatat taatagggat tattttgaat ttctgtaata cgtatgtatc ctctataata 300
catagagaat gcaaaaggaa aataatttga aagctatcct attttatctt gaaagcaatc 360
ttttaaaagc gcattataca tttatttgaa cgcttatttg gaattgtctc ttttccattc 420
tcttttcctt taaagaaatg gtaggggaaa aacatctggt ataccctata gctgtcttac 480
ttagtcaag gtaatatact acgaaagaac acacgtaccc tgg 523
```

<210> 25

<211> 5982

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (5780)

<223> a, c, g or t

<220>

<221> unsure

<222> (5885)

<223> a, c, g or t

<400> 25

```
atgggcccgc gagccaggcc ggcgcttctc ctctgatgc ttttgcagac cgcggtcctg 60
caggggcgct tgctgcgtga gtccgagggc tgcgggcgaa ctaggggccc ggcgggggtg 120
gaaaaatcga aactagcttt ttctttgcgc ttgggagttt gctaactttg gaggacctgc 180
tcaaccctat ccgcaagccc ctctccctac tttctgcgtc cagaccccgt gagggagtgc 240
ctaccactga actgcagata ggggtccctc gccccaggac ctgccccctc ccccggctgt 300
cccggctctg cggagtgact tttggaaccg cccactccct tcccccaact agaatgcttt 360
taaataaatc tcgtagtctc tcacttgagc tgagctaagc ctggggctcc ttgaacctgg 420
aactcgggtt tatttccaat gtcagctgtg cagttttttc cccagtcac tccaaacagg 480
aagttcttcc ctgagtgcct gccgagaagg ctgagcaaac ccacagcagg atccgcacgg 540
ggtttccacc tcagaacgaa tgcgttgggc ggtgggggcg cgaaagagtg gcgttgggga 600
tctgaattct tcaccattcc acccactttt ggtgagacct ggggtggagg tctctagggg 660
gggaggctcc tgagagaggc ctacctcggg cctttcccca ctcttgcaa ttgttctttt 720
gcctggaaaa ttaagtatat gttagttttg aacgtttgaa ctgaacaatt ctcttttcgg 780
ctaggcttta ttgatttgca atgtgctgtg taattaagag gcctctctac aaagtactga 840
taatgaacat gtaagcaatg cactcacttc taagttacat tcatatctga tcttatttga 900
ttttcactag gcatagggag gtaggagcta ataatacgtt tattttacta gaagttaact 960
ggaattcaga ttatataact cttttcaggt tacaagaac ataaataatc tggttttctg 1020
atgttatttc aagtactaca gctgcttcta atcttagttg acagtgattt tgccctgtag 1080
ttagcacag tgttctgtgg gtcacacgcc ggcctcagca cagcactttg agttttggta 1140
ctacgtgtat ccacatttta cacatgacaa gaatgaggca tggcacggcc tgcttcctgg 1200
```

caaatttatt	caatggtaca	ctgggctttg	gtggcagagc	tcatgtctcc	acttcatagc	1260
tatgattctt	aaacatcaca	ctgcattaga	ggttgaataa	taaaatttca	tgttgagcag	1320
aatatttcat	tgttttacaag	tgtaaattgag	tcccagccat	gtgttgccact	gttcaagccc	1380
caagggagag	agcagggaaa	caagtcttta	ccctttgata	ttttgcattc	tagtgggaga	1440
gatgacaata	agcaaattgag	cagaaagata	tacaacatca	ggaaatcatg	ggtgttgtga	1500
gaagcagaga	agtcagggca	agtcactctg	gggctgacac	ttgagcagag	acatgaagga	1560
aataagaatg	atattgactg	ggagcagtat	ttcccaggca	aactgagtgg	gcctggcaag	1620
ttggattaaa	aagcggggtt	tctcagcact	actcatgtgt	gtgtgtgtgg	gggggggggg	1680
cggcgtgggg	gtgggaagg	ggactaccat	ctgcatgtag	gatgtctagc	agtatcctgt	1740
cctccctact	cactaggtgc	taggagcact	ccccagctct	tgacaaccaa	aaatgtctct	1800
aaactttgcc	acatgtcacc	tagtagacaa	actcctggtt	aagaagctcg	ggttgaaaaa	1860
aataaacaag	tagtgctggg	gagtagaggc	caagaagtag	gtaatgggct	cagaagagga	1920
gccacaaaca	aggttgtgca	ggcgcctgta	ggctgtggtg	tgaattctag	ccaaggagta	1980
acagtgatct	gtcacaggct	tttaaaagat	tgctctggct	gctatgtgga	aagcagaatg	2040
aaggagacaa	cagtaaaagc	agggagccca	gccaggaagc	tgttacacag	tccaggcaag	2100
aggtagtgga	gtgggctggg	tgggaacaga	aaaggagtg	acaaaccatt	gtctcctgaa	2160
tatattctga	aggaagttgc	tgaaggattc	tatgttgtgt	gagagaaaga	gaagaattgg	2220
ctgggtgtag	tagctcatgc	caaggaggag	gccaaggaga	gcagattcct	gagctcagga	2280
gttcaagacc	agcctgggca	acacagcaaa	accccttctc	tacaaaaaat	acaaaaatta	2340
gctgggtgtg	gtggcatgca	cctgtgatcc	tagctactcg	ggaggctgag	gtggagggta	2400
ttgcttgagc	ccaggaagtt	gaggctgcag	tgagccatga	ctgtgccact	gtacttcagc	2460
ctaggtgaca	gagcaagacc	ctgtctcccc	tgacccccctg	aaaaagagaa	gagttaaagt	2520
tgactttgtt	ctttatttta	attttatttg	cctgagcagt	ggggtaattg	gcaatgccat	2580
ttctgagatg	gtgaaggcag	aggaaagagc	agtttgggg	aaatcaagga	tctgcatttg	2640
ggacatgtta	agtttgagat	tccagtcagg	cttccaagt	gtgaggccac	ataggcagtt	2700
cagtgtaaag	attcaggacc	aaggctgggc	acggtggctc	acttctgtaa	tcccagcact	2760
ttggtggctg	aggcaggtag	atcatttgag	gtcaggagtt	tgagacaagc	ttggccaaca	2820
tggtgaaacc	ccatgtctac	taaaaatata	aaaattagcc	tggtgtgggtg	gcgcacgcct	2880
atagtcccag	gttttcagga	ggcttaggta	ggagaatccc	ttgaaccag	gaggtgcagg	2940
ttgcagttag	ctgagattgt	gccactgcac	tccagcctgg	tgatagagt	gagactctgt	3000
ctcaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aactgaagga	attattcctc	aggatttggtg	3060
tctaatttgc	cctgagcacc	aactcctgag	ttcaactacc	atggctagac	acaccttaac	3120
attttctaga	atccaccagc	tttagtgagg	tctgtctaat	catgagtatt	ggaataggat	3180
ctgggggagc	tgaggggggtg	gcagccacgt	gtggcagaga	aaagcacaca	aggaaagagc	3240
accaggact	gtcatatgga	agaaagacag	gactgcaact	cacccttcac	aaaatgagga	3300
ccagacacag	ctgatggtat	gagttgatgc	agggtgtgtg	agcctcaaca	tectgtctcc	3360
ctcctactac	acatggttaa	ggcctgttgc	tctgtctcca	ggttcacact	ctctgcacta	3420
cctcttcatg	ggtgcctcag	agcaggacct	tggtctttcc	ttgtttgaag	ctttgggcta	3480
cgtggatgac	cagctgttcg	tggtctatga	tcatgagagt	cgccgtgtgg	agccccgaac	3540
tccatgggtt	tccagtagaa	tttcaagcca	gatgtggctg	cagctgagtc	agagtctgaa	3600
agggtgggat	cacatgttca	ctgttgactt	ctggactatt	atggaaaatc	acaaccacag	3660
caagggtatg	tggagagggg	gcctcacctt	cctgagggtt	tcagagcttt	tcatcttttc	3720
atgcatcttg	aaggaaacag	ctggaagtct	gaggtcttgt	gggagcaggg	aagaggggag	3780
gaatttgctt	cctgagatca	tttggtcctt	ggggatggtg	gaaataggga	cctattcctt	3840
tggttgagc	taacaaggct	ggggattttt	ccagagtccc	acaccctgca	ggtcatcctg	3900
ggctgtgaaa	tgcaagaaga	caacagtacc	gagggtact	ggaagtacgg	gtatgatggg	3960
caggaccacc	ttgaattctg	ccctgacaca	ctggattgga	gagcagcaga	accaggggcc	4020
tggcccacca	agctggagtg	ggaaaggcac	aagattcggg	ccaggcagaa	cagggcctac	4080

ctggagaggg	actgccctgc	acagctgcag	cagttgctgg	agctggggag	agggtgttttg	4140
gaccaacaag	gtatggtgga	aacacacttc	tgccccata	ctctagtggc	agagtggagg	4200
aggttgcagg	gcacggaatc	cctgggttga	gtttcagagg	tggctgaggc	tgtgtgcctc	4260
tccaaattct	gggaagggac	tttctcaatc	ctagagtctc	taccttataa	ttgagatgta	4320
tgagacagcc	acaagtcacg	ggtttaattt	cttttctcca	tgcataatggc	tcaaagggaa	4380
gtgtctatgg	cccttgcttt	ttatttaacc	aataatcttt	tgtatattta	tacctgttaa	4440
aaattcagaa	atgtcaaggc	cgggcacggg	ggctcacccc	tgtaatccca	gcactttggg	4500
aggccgaggc	cagcagatca	cctgagggtc	ggagtttgag	accagcctga	ccaacatggg	4560
gaaacccgtc	tctaaaaaaa	tacaaaaatt	agctggtcac	agtcatgcgc	acctgtaatc	4620
ccagctactc	gggaggctga	ggcaggagaa	ccgcttgaa	ctgggaggta	gaggctgcag	4680
gttagaagta	cagaattcct	gaagcacctt	agggggtaag	tcagtaggga	cttaggtaag	4740
taacgtgtgg	aaaagatagt	ggtccattgt	agagagagtg	cactagaata	caacttcggg	4800
tcagggaagc	agcaattata	ggtccaccta	caggggaatga	tgcagtctcc	tgccttgggt	4860
aacatgttag	tggcaaagct	ttacagggtc	caagcagggg	accacttca	agagagtgc	4920
gattgcaatt	aatgacacat	aaaggaattg	tttttctcct	atctagggtga	ataggggatc	4980
ttgagtaagt	gtaagtaact	gatgacagcc	ctggcttttg	tctaacagta	atataacaga	5040
gtaatagcta	ctactaactg	agttctccta	tgtgtcaagc	tctgtgcaag	acactttaca	5100
atgtcatttg	acttaattct	ccctctcag	agtcagaatg	atcccaaatt	tcataaagga	5160
ggaaaatgag	ttcacaagaa	ttacattcct	taaggtaaca	ctggtaagtg	gctcagttgg	5220
gattcaaacc	cagggtacgt	gtgttctttc	gtagtatatt	accttgacta	cagtaagaca	5280
gctatagggg	ataccagatg	tttttccctt	accatttctt	taaaggaaaa	gagaatggaa	5340
aagagacaat	tccaaataac	tttcaaataa	atgtataatg	cgctttttaa	agattgcttt	5400
caagataaaa	taggatagct	ttcaaattat	tttccttttg	cattctctat	gtattataga	5460
ggatacatat	gtattacaga	aattcaaaa	aatccctatt	aatataaaa	tacttggtaa	5520
ggcaaagcct	gattcataat	tccaacttga	cattcctccc	cccacacaaa	caataatgat	5580
tcacatttaa	aaatgaattt	caaactttct	aaaacattta	acaatatccc	acatagaggt	5640
gataatataa	tgataaaaa	tttcattgag	cttctaatta	aatggatagg	gcacacaaaa	5700
taaggcaata	tctgcttttc	tctcctaagt	agcacaaaaa	ctaaagtgtg	atagtgtact	5760
acttttggaa	gagacatttn	taactagtaa	tgataatttg	tcttaattca	taaacacttc	5820
aaatcacata	actgaatata	ttttcaacca	ggaggatgca	acattacccc	aaaataaccga	5880
gtcanagaaa	ttattattgt	tgagacaacc	aggtaccaaa	ctcttaattc	ccattggggt	5940
tctgggcctt	tttacctgta	ctttaacact	aattcccgtg	aa		5982

<210> 26

<211> 820

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (502) .. (565)

<223> a, c, g or t

<400> 26

caaacaatat	gtgtgagatt	taatgatttt	tgtectat	tttttctatt	tattatttaa	60
tactttcagg	ggtatcctag	taaaagcgac	tttccatgtg	cctgcctgtg	cctttctgtg	120
ccagggtctt	aagaaatgtg	tgtgggtttc	ctctgtggct	ctgacactcc	atcaaacacc	180

```

aggacttgtg cagcaggtg agaagcatat ccaggtgcct cagagatatt gaagagggtc 240
tggaatgtgg gagagaggca aatggctttc caataaaagt aggctaagac ataattaggg 300
gcttaggtgc tgctttaaaa aataagtagc agtgatttcc agactcctct aagaaaagag 360
aattgctcat tgtggaacag gcatggcaat gcagtgccct tgcctggaac accttgctgc 420
tgccatcact aagaccatt ctgggacaag aggaggctta ccccttattg agtatctgcc 480
atgagctttg tgtggtcctt gnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 540
nnnnnnnnnn nnnnnnnnnn nnnnnggcc cccatttcct gacagagatt ggcctacaaa 600
ggtcagatgg cttccagggc aactgagcg gcccttgtgt gtcggaatgt tcccttctgt 660
ttgtcccttc caggetggac actttgggag cagaagtcaa agacaccttt atcattgtac 720
cctcagcacc tgggtgtagt cctgggattt agtagttctg aggagcgtgt gttgaatgaa 780
tggaggttaa gtaacttaga cattagatag taggactctg 820

```

<210> 27

<211> 839

<212> DNA

<213> Homo sapiens

<400> 27

```

gaaatagagc acataaaacc aaacaatatg tgtgagattt aatgattttt gtcctatttt 60
ttttctattt attatttaat actttcaggg gtatcctagt aaaagcgact ttccatgtgc 120
ctgctgtgct ctttctgtgc cagggcttta agaaatgtgt gtgggtttcc tctgtggctc 180
tgacactcca tcaaacacca gggcttgtgc acgcaggtga gaagcatacc caggtgcctc 240
agagatattg aagagggtct ggaatgtggg agagaggcaa atggctttcc aataaaagta 300
ggctaagaca taattagggg cttaggtgct gctttaaaaa ataagtagca gtgtattcca 360
gactcctcta agaaaagaga attgctcatt gtggaacagg catggcaatg cagtgccttt 420
gcctggaaca ctttgcctgc gccatcacta agaccattc tgggacaaga ggaggcttac 480
cccttattga gtatctgcca tgagctttgt gtggtccttg cttgctaggt acttgagcaa 540
gcattatctt ttttaccttt taaaacacca ctgaggtgta ggtatggcac ccatttcctg 600
acagagattg gcctacaaag gtcagatggc ttccagggca cactgagcgg cccttgtgtg 660
tcggaatgtt cccttctgtt tgtcccttcc aggetggaca ctttgggagc agaagtcaaa 720
gacaccttta tcattgtacc ctcagcacct ggtgtagtgc ctgggattta gtagttctga 780
ggagcgtgtg ttgaatgaat ggaggttaag taacttagac attagatagt aggactctg 839

```

<210> 28

<211> 191

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (175)

<223> a, c, g or t

<400> 28

```

gacattcat gttccagctt ctgccttcaa gtcctgaag gtcagtgcct aagagcaggg 60
tcaaggagt cagaacccat tggtagatt tacaggacct cccaccaac cgtagcatg 120

```



ccgtctgtag catgggaggg gcctggagca tagcagggcc tctcacgggc tttgntttca 180  
 gggtgacatt t 191

<210> 29  
 <211> 998  
 <212> DNA  
 <213> Homo sapiens

<400> 29  
 ggccgcatat tttttttttt tttttttttt ttttaaaggt agaaaataac acaacctttt 60  
 attttttatt ttcatttggt ttgagatgga gtttcaactct tgtcaccag gctggagtgc 120  
 aatgggtgga tctcggtcca ctgcaacctc cacctcccag gctcaagtga ttctcctgcc 180  
 ttggcctccc aagtagctgg gattacagggc atgcactaca acgcccagct aatttttgca 240  
 ttttttagtag agataggggt tcaccatggt ggccaggctg gtccctcaact cctgacttca 300  
 ggtgatccat ccatcttggc ctcccaaagt gctgggatta caggcgtgac agctgtgccc 360  
 ggcccacctt ttaaagtca acctgaaacc aaagcccgtg agaggccctg ctatgctcca 420  
 ggcccctccc atgctacaga cggcatgcta acggttgggt ggggggtcct gtaaatctca 480  
 ccaatggggt ctgcaactct tgaccctgct cttaagcact gaccttcagg agcttgaagc 540  
 gagaagctgg aacaatgaag tgtctattct gcttcttctt gcaaagtctg caactacaga 600  
 aagacagagc aaattccaga ttgtgagcag ccacctgcat cctctatgcc tgagcggccc 660  
 agccatgaga gccagccgac cccacagatg atgccccttt cagcaccatc cagggccgag 720  
 gagctggggc aaaggcctgg atagcagtgc ctctggtttg caggtacagc agagcccagg 780  
 ggggtcccaa gtcagcagtc gaggttctgc aatgctcaga acacaggacc aacagacagg 840  
 tctgtactgc ccacccctca gttctttaca gtgaagagaa gcgctggact tcagagacac 900  
 ttaggaaaca aatttcagac actgctacaa cctgatgtct ctgagacatc cacacccaaa 960  
 atggacaagg aagtctaggt ttccctcttt ctccatca 998

<210> 30  
 <211> 282  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> unsure  
 <222> (5)  
 <223> a, c, g or t

<220>  
 <221> unsure  
 <222> (17)  
 <223> a, c, g or t

<220>  
 <221> unsure  
 <222> (29)  
 <223> a, c, g or t

<220>  
 <221> unsure  
 <222> (110)  
 <223> a, c, g or t

<220>  
 <221> unsure  
 <222> (128)..(217)  
 <223> a, c, g or t

<400> 30  
 accanggggc cgaccanggg tacgaccang ggtccggcctt gatctcactt atatatggaa 60  
 cttaaaaact acacatagaa acagggtaga atggtagtta tccaggctcn ggaggaagag 120  
 aaaacaannn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnngta tatggaaaat ttgctgagag 240  
 actagatttt aggtattcta cctcaattaa aaaggtaatt gt 282

<210> 31  
 <211> 1225  
 <212> DNA  
 <213> Homo sapiens

<400> 31  
 ggggaaagac caaccagttg gggctttctc ccagggctcc cgggggctgt gtctgagtgt 60  
 ctgtgttggc tgtttggttt gctttggttt tgtttctgga ggttgcttgc aggttttttg 120  
 aggaagtgac tagtttggtt aagagctggg aactgagtca ggtaagccgt gtcattgtgt 180  
 aactccacca gaaaatggag gagagcgggt ttccaggaga caaagctgag atgagaagtg 240  
 ttataaaaat tatggatgtc tccattttga agctctgttg gtgatggctg gaggaggagg 300  
 aggcttgctt gcctactcct tctctcttcc cagagggaaa ccttggtggtg gttcctcact 360  
 gtctattcat tatgcaagga aatgagggtt ttaagggtt cctcagattt ttctccacca 420  
 aagagtgcct tcacaagtta ttgaggcggt tgtttccatt ttaaagtaaa cttttggaat 480  
 tttttttctc cttttgagtg gacctgaagg gttttgacct ctttcaggaa aggcaaggca 540  
 aaaacttaaa acagttcact gaggtctcac acaactttaa gctgctccag gtctcctgaa 600  
 agtcaccagg aaatgtgatt tctctcttgt gaagatgggt atggccctaa gctgagattt 660  
 ttttgagttc tagggtttgg ttatcatcat gttttgatgc attgcaagac tttattgtct 720  
 gatttgagtt gatttctgca aatataaaaa ataataagaa taatcctgca agatctcaga 780  
 ggaactctaa gactggctaa caccagtttc tccagggtct ccatttctct tcaggtcgtt 840  
 ccatttgatg gttaggcctt ctttcagttt ctttggttcc cctttccctt tccgtcggct 900  
 aattttttct gtgttctgaa gtactcttaa gtcttcagaa atatcagtat gtcttcttaa 960  
 caatgtcgtc atggaaacaa attttaaaaa catgatgtca gttgagaaaa ccttatgtcc 1020  
 aggtatcttc acctttttta ttggggaggaa tttattaatc atgtaggaag acattttgtg 1080  
 aggataattt gaaaaaagga cccagtgtca ccctagtcca cacacattga tgggagctct 1140  
 tcacatatta gttttagaga atgtacataa ttgacccaag caaagaacta aatcccga 1200  
 tgcttcagga atttttaaaa gccaa 1225

<210> 32  
 <211> 844  
 <212> DNA  
 <213> Homo sapiens

<400> 32  
 tctgccatgg tgacaattat tttaaattta gatgagatca tcataacatg acacataaaa 60  
 attgtttcat catgcatatc aagtttgata tgtagcttaa atttattttg cacacactag 120  
 aatttgtcct ggttttctag tacctcaagg cagatatgca aagggtgttta ggagacatac 180  
 tctcagacaa accattatta ttttaaagga tagaacaaaa caatcgctag ttaaggaaga 240  
 tgttttgtaa taattaaact tgtaattatt tgacttgaaa tatttaataca tttttttggg 300  
 aaagaatgga tagattttgt taatgttagc actcttaaaa ttaagcagtg gcttttttcc 360  
 ccgtgtctcc catattctcc ttgtgtttga aacataaaaac aaacactaaa cctaagcaaa 420  
 agttgctggg tttgttttca taattgaggt gagtttttcc ctcaactatt acaataaaaag 480  
 aaaacttttt atgattttta tgataatgtt ttgtggtggg ttaaagacct cctaacaaca 540  
 gggggttttt atacaacaac aagaagtttt taaataattg agttttttaa gtggaaagca 600  
 gcagtaaatt aaactagaag gatatatatt atacctagaa ataaataaag ctcaacttgt 660  
 tttgtaagcc tgttttaaaa atattttaatc atttaatttg tgcaagtata gagttctcct 720  
 atggcaaaac tataccatca tcttctccaa ttgtgcatgg cagctgtact aagttctgca 780  
 aaaacaagac atatggatgt gtttcatacc ttctcagaat tggatatatca agacacattt 840  
 aaat 844

<210> 33  
 <211> 2483  
 <212> DNA  
 <213> Homo sapiens

<400> 33  
 gatctagaac tagtcatcgc gagcggcctt tttttttttt ttttttaaga tggagtttcg 60  
 ctcttgttgc ccagggttga gtgcaatggc gcgatcttgg cttactgcaa cctctgcctt 120  
 gcagttcaag caattctact gcctcagcct ctcaagtagc tgggactata gacattcacc 180  
 accacacca gctaattttt tgtattttta gaaaattttg tatatttaga aaagggtttca 240  
 ccatgttggc caggctgggc ttgcactcct gacctcaggt gatccgcca cctcagcctc 300  
 ccaaagtgtc gggattacag gcctgagcca ctgtgccag ccctcaagta actcttaaac 360  
 ctactgaagt tagacaatca ataactgaaa tgacatcatc tttcttgaat gtttaaggaa 420  
 ataaagtcc ttcttctgac aaactttaag tgtgttcttg atttccttgc ctccctcttc 480  
 ctctgggagt tttcttccct agctgtcac tttcattatc aacgaaatat tcctcttcac 540  
 gcctttttac cttataccta caacatgctc agttctctct ctttacaaga aaatataagt 600  
 tttcaccaac ctatttatca aatttacatc cccctccctt tctacttctt tttgtaaaaa 660  
 aagagcattc aacctattgt ctgtctccat gccctcacat tatcagtgca agcaccgcga 720  
 actgtggctc tccaccatgt gagctcaacc tatcatcaca actgtatctc ccctaacact 780  
 catttagatt aagccatttt tcacaagttt ctaaaattat ctcttccatt tctcagtata 840  
 accctttctt tcccttcaca gtttcttgaa ccaatctcac tagtccttca acgttcactt 900  
 ccaaggccac cccgaacaca tcttttcttc ttcctaaat aaattctact ggattctttc 960  
 tgtttttcac tggaaacttc tcatactcca ttgggttctt tctcatgaca tttattttac 1020  
 atccctagta ttctgggttc ttacattttt tttcctatct actaaacaat aacttctttg 1080  
 agaactggac cagtgtctct tatatttata tccctaataa tacttattaa acacgtagtc 1140

tattctcaac	attgaattcc	atcttatact	caaagaataa	tactttaaca	tagccattgt	1200
tcatagtgt	tatataatta	agaacacatt	ccatattttt	cttgagatta	tatagtgtta	1260
aatttttcaa	aattatagga	tatgatctaa	agatatattt	taaaactcaa	acctgtaatt	1320
ttatcttcag	ttatgctata	gcatgtacat	ttccattctc	ttgtcgaagt	ttctttcggt	1380
cctcagcttc	tccttcatat	ttcctgacgt	attgtcttct	aagccttcag	agaacaaggc	1440
attctaattgt	tatcaagggt	ctattcatct	atatgtttga	ttgggggttt	tatgagtaga	1500
gggggttcca	cttcatgagt	agtgatagac	cagcaatcac	tatacttgac	actaaaccta	1560
aacctggcta	taaaatatta	ccaattttcta	aggggggtatt	tatgttgact	gtatataaat	1620
ccattttccag	agggtttata	tttaaatgtg	tcttgatata	ccaattctga	gaaggtaga	1680
aacacatcca	tatgtcttgt	ttttgcagaa	cttagtacag	ctgccatgca	caattggaga	1740
agatgatggt	atagttttgc	cataggagaa	ctctatactt	gcacaaatta	aatgattaaa	1800
tattttttaa	acaggcttac	aaaacaagtt	gagctttatt	tattttctagg	tataaaatat	1860
atccttctag	tttaattttac	tgctgctttc	cactttaaaa	actcaattat	ttaaaaactt	1920
cttggtgttg	tataaaaacc	ccctgttgtt	aggaggtctt	taaccacca	caaaacatta	1980
tcattaaaaat	cataaaaagt	tttctttttat	tgtaatagtt	gagggaaaaa	ctcacctcaa	2040
ttatgaaaac	aaaccagca	acttttgctt	aggtttagtg	tttgttttat	gtttcaaaca	2100
caaggagaat	atgggagaca	cggggaaaaa	agccactgct	taattttaag	agtgctaaca	2160
ttaacaaaat	ctatccattc	tttcccaaaa	aatgatttaa	atatttcaag	tcaaataatt	2220
acaagttaa	ttattacaaa	acatcttctt	taactagcga	ttgttttgtt	ctatccttta	2280
aaataataat	ggtttgtctg	agagtatgtc	tcctaaacac	ctttgcatat	ctgccttgag	2340
gtactagaaa	accaggacaa	attctagtgt	gtgcaaaata	aatttaagct	acatatcaaa	2400
cttgatatgc	atgatgaaac	aatttttatg	tgtcatgtta	tgatgatctc	atctaaattt	2460
aaaataattg	tcaccatggc	aga				2483

<210> 34

<211> 591

<212> DNA

<213> Homo sapiens

<400> 34

aatccattta	aagtcaacta	aatgttat	gggtaatatg	tccctcatgt	taaatttgcc	60
caaatatata	tctcacctct	taaaattcgt	ttagtttgaa	attaaaatta	gtattgtttt	120
tctgcatgta	ctcctaggtt	gggtaaagaa	gggaacaagg	gaatggggaa	acgtagagat	180
tcttggaacta	acagagaaaag	acagcttgag	aataaaaagta	tgcaaaaagat	aatctacaac	240
aaaataatgc	acttaactct	tgttactaaa	caaataagct	acccacattt	cagcttatct	300
gtattttgtt	catgattttgt	cagctatcta	gcaactatct	tagtcactga	ttcggaacga	360
cttagcagt	gttattgcat	agaacaactc	cttacacaga	gatttgcaag	ctttctgaac	420
tttcgtactt	tcaaattgaa	aatcaggaga	aacattttca	acggcttcat	attcagacca	480
agattagtat	attaacaact	aataacaata	ttaaaagtta	gaacaattcc	tttcctctat	540
ctttctcagg	acaaactcga	gcttattaga	aaactagggga	gtgatctggt	g	591

<210> 35

<211> 306

<212> DNA

<213> Homo sapiens

<400> 35

```
cctagggaga atcagcaagg aaaagatcaa tgtaatcttg aataacttat cctgaaactt 60
ctccagaggt acccagagag tcaacagtca tgctgctttt tgtacttagt ctgggtgtttc 120
agtaccagtt taacacataa aaagtgatca aggtgcaagg gacacagctt tgaaatagtc 180
agacctggat ctgaatctgt gattctgtca tctgcaataa gtttctaact tctccaagcc 240
ttagtttttt atctgtaaag gggagtatta actagagatg aggattaaat gaaaagtcac 300
ttactc 306
```

<210> 36

<211> 617

<212> DNA

<213> Homo sapiens

<400> 36

```
ccaagactga gttagatttt ctattatgta ctcccatggc aacagcattt tccacttaac 60
ttgttggaag agggacaact gtcctctggg ggctctgttg ccaatatttg ttccactttc 120
tctttcattt tcactttctt ccttacactt gcaatccaga gtccagatgt aaaacagtgt 180
agggccataa gtgatgggac atctctaaca aaattcttgg aggctgctgc ctggaaactt 240
gtgtccttgg gatggtaccc ttacccttga ggtgctaggg atgggccccg gggctctttc 300
ctgcttttcta ctttcctaag ggctaagtga tgtcagagga caacatcttg atgtgtagag 360
gtacaagaat tcagggatgc aaggatgcct tcctgcaaga cagagatcat tctatctaaa 420
ccaatgtttt caggtttttt actaggagca catgcatgaa tgtgtatata tgtgtatagc 480
tatgcaaaaa catgaacaga tgtatgcatg tgtataatct aaaacacata aagggtacata 540
tactgacata ctgaaacaca tattaatata accaaaaata aaaatttcat gagacagtat 600
taatgtttac cacatgc 617
```

<210> 37

<211> 725

<212> DNA

<213> Homo sapiens

<400> 37

```
ccaagactga gttagatttt ctattatgta ctcccatggc aacagcattt tccacttaac 60
ttgttggaag agggacaact gtcctctggg ggctctgttg ccaatatttg ttccactttc 120
tctttcattt tcactttctt ccttacactt gcaatccaga gtccagatgt aaaacagtgt 180
agggccataa gtgatgggac atctctaaca aaattcttgg aggctgctgc ctggaaactt 240
gtgtccttgg gatggtaccc ttacccttga ggtgctaggg atgggccccg gggctctttc 300
ctgcttttcta ctttcctaag ggctaagtga tgtcagagga caacatcttg atgtgtagag 360
gtacaagaat tcagggatgc aaggatgcct tcctgcaaga cagagatcat tctatctaaa 420
ccaattgttt tcaggttttt tactaggagc acatgcatga atgtgtatat atgtgtatag 480
ctatgcaaaa acatgaacag atgtatgcat gtgtataatc taaaacacat aaagggtacat 540
atactgacat actgaaacac atattaatat aacaaaaata aaaatttcat gagacagtat 600
taatgttaac cacatgctat atacttatat ttttctttca tttgcaaaag aatgctgtta 660
tgactgtcta aacctctggc ttgagaaaaa aaaaaaaaaa aaaaagatct ttaattaagc 720
gtgcc 725
```

<210> 38  
<211> 90  
<212> DNA  
<213> Homo sapiens

<400> 38  
gtaaaatatac tgtctcactg gcaatTTTTT ttacattgaa ttgttgaca atTTTTTTac 60  
attgaatatg ttaaaatTTT tatatatTgg 90

<210> 39  
<211> 222  
<212> DNA  
<213> Homo sapiens

<400> 39  
tgtagagatg ggatctctct ttgttgcccg ggctggctctg gaattctctg ggttcaggTg 60  
atcctgctac gtcagccatg agccacggTg ccagcctgg caggctTggT ttctcttaat 120  
gcctctcctt ggcttgcaag atggccacct tctggctgtg tctctctct catggccttt 180  
cctttgtggg cacacatcct tgTtctctcc ttctcttat aa 222

<210> 40  
<211> 257  
<212> DNA  
<213> Homo sapiens

<400> 40  
gttttcccat tgactaacgc ttaagatata ttggagtcaa atgctcataa aatgctcatc 60  
caatgcttat aaaatattag agttgaaTg gactctctgt tcatgcagat gatgagaccg 120  
aaacagagag cttccaggag gatcaatgcc attcaatgag cttgctgctg tactccccctc 180  
tacacaatat ggatatatcc catcccagcc cgagactggc catactagTt ctagtaactg 240  
aggctttcct cctactt 257

<210> 41  
<211> 263  
<212> DNA  
<213> Homo sapiens

<400> 41  
gctcgaggTt ttcccatTga ctaacgctta agatatattg gagtcaaTg ctcataaaat 60  
gctcatcaat gcttataaaa tattagagTt gaaatggact ctctgtTcat gcagatgatg 120  
agaccgaaac agagagcttc caggaggatc aatgccatTc aatgagctTg ctgctgtact 180  
ccctctaca caatatggat atatcccatc ccagcccgag actggccata ctagttctag 240  
taactgaggc tttctccta ctt 263

<210> 42  
 <211> 533  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> unsure  
 <222> (501)  
 <223> a, c, g or t

<220>  
 <221> unsure  
 <222> (514)  
 <223> a, c, g or t

<220>  
 <221> unsure  
 <222> (528)  
 <223> a, c, g or t

<400> 42  
 atacagagtc gtgttggtt ggcagtcctta aatcactctt gttattttcca gtggacatta 60  
 aaaaaaaatc acagataagt acttaaaaca ctcaagattt gggattttaga tcatgattag 120  
 atacaataga aagatcctgg aatcccgaca tgaggacaaa aatgggtactg aattctttttt 180  
 gaaaaataga ttactgaaaa gcgatccta atagaacagt tgctttttact tagatgttca 240  
 atgcatattt gttgtataat aaccaagtta ttacagttca gataaagggg ccaaagtgtt 300  
 ttcgttatga tataataactt tctattgtaa actggactaa agaaacgttg tatgttcaag 360  
 gaagtgttga gcagccatgg tgttcctggg acatgctccc caggtgctga gagaggtgct 420  
 gcaggagtca cagacctgca ggcacgcact tgccagtgaac tgggacgttg gctggtgggt 480  
 ctctttttggt gtgattagag ntatgtgagt tgnntcaata cttgagantg tcg 533

<210> 43  
 <211> 676  
 <212> DNA  
 <213> Homo sapiens

<400> 43  
 atacagagtc gtgttggtt ggcagtcctta aatcactctt gttattttcca gtggacatta 60  
 aaaaaaaatc acagataagt acttaaaaca ctcaagattt gggattttaga tcatgattag 120  
 atacaataga aagatcctgg aatcccgaca tgaggacaaa aatgggtactg aattctttttt 180  
 gaaaaataga ttactgaaaa gcgatccta atagaacagt tgctttttact tagatgttca 240  
 atgcatattt gttgtataat aaccaagtta ttacagttca gataaagggg ccaaagtgtt 300  
 ttcgttatga tataataactt tctattgtaa actggactaa agaaacgttg tatgttcaag 360  
 gaagtgttga gcagccatgg tgttcctggg acaggtctccc caggtgctga gagaggtgct 420  
 gcaggagtca cagacctgca ggcacgcact tgccagtgaac tgggacgttg gctggtgggt 480  
 ctctttttggt gtgattagag ctatgctgta caggaagcat ggctggggag gcctcgggaa 540

acttacaatc atggtgaaag gcaaagggga agcaggtttg tcccataatt cttcgggcct 600  
 ctctcaagcc ttcgagtgga tgctgtttca tatttcatcc agcctgggag ttggagacct 660  
 gagctgcatt acctaa 676

<210> 44  
 <211> 251  
 <212> DNA  
 <213> Homo sapiens

<400> 44  
 caggcctgct cagcaagatt ttcattgggat tagtgaattg gtggttgcca aatgccataa 60  
 taatgcacca tgcagtagac ttgctgtaaa gcacagtttc atcataacaa taactgtaaa 120  
 taatgctact gaacagctac agagcactcc tctgaactca ctggaatggg ctatatccca 180  
 tggcaagatg agtaagcctc aagcgcaaaa atctcaccct tgtttccctt tttttttggc 240  
 agaaatccccg a 251

<210> 45  
 <211> 606  
 <212> DNA  
 <213> Homo sapiens

<400> 45  
 agcgcccatg ggattagggga gagcatggcc ttcagaggct ggagctgtag tcttaactgc 60  
 acagctgggtc cagcagggcg taacgcctct acctagagag taaaatgaca acagttgttc 120  
 cctaagctca gcaattgcaa agaaatcttt tgggaagatc tcttcaaatt tctagaactc 180  
 tgcgcaaaca ataggtagga caagtgtgaa cctacccaac ctctgttgac aaatacagct 240  
 gcacacccct cagcgaggcc tgctgtgaaa tgccaccttg gtgaaaatga gaataaaggg 300  
 tgagttagcc agctgctttt ggatgaccaa attaatctt agcctcccat taagacaggc 360  
 ctgctcagca agattttcat gggattagtg aattgggtgg tgccaaatgc cataataatg 420  
 caccatgcag tagacttgct gtaaagcaca gtttcatcat aacaataact gtaaataatg 480  
 ctactgaaca agctacagag cactcctctg aactcactgg aatgggctat atcccatgca 540  
 agatgagtaa gcctcaagcg caaaaatctc acccttgttt cccttttttt ttggcagaaa 600  
 tcccga 606

<210> 46  
 <211> 455  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> unsure  
 <222> (14)  
 <223> a, c, g or t

<220>



<221> unsure  
<222> (16)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (18)  
<223> a, c, g or t

<400> 46  
agaaaaggag agananangg agggagggag aaagaaagaa ggtaaattga gacagcacta 60  
agtgtctatgg agagaattaa aggtgagcca tgtaatgtgg ctgaagaatt aggttaaatt 120  
gggtgttccc atggcctaag ggggtgacat ttaagttagg gttaacatgg agaggtgagc 180  
aggaagagag tttcaaatca tgtgagagct agtcccaatg ccgtaaggag gaaatgggat 240  
tggtgtgttt gaggaactga ggaagggcag ctgggagtat ggtacatgaa aaagaccgtg 300  
acaaagaata agattgggca catagatggc agttccatct tctcacgttg tatgccaaag 360  
taagaagttc ctaatttact gatagcaatg tgaacccaat gagaaacttt taaaagaaga 420  
atgaagccat ctggttaagt atttaaaagt tcatt 455

<210> 47  
<211> 367  
<212> DNA  
<213> Homo sapiens

<400> 47  
catctggtgg cttctttcgt gcaacacatt cttaccaaatt gcccgctgca caccacgcat 60  
gcactgtcct gagcgctagg aacagcagca accaggaccg gcagggtcga gagcctcccc 120  
tgtgtgccaa gaatacagac agcccaggca gagggcattc ggtgctccag acacaaagtg 180  
aaggcccagc ttcaaagtgt gctggatcca ggcacacatc ctgaggttct gctggtctgg 240  
actgctaacc cactcacgag gatccattct caagcagccc cagcctgtct cccacctgg 300  
gcacgtcatg gctggggtct cttgatgggc aaggctccat tgatcgagtc ccctttggac 360  
tggggca 367

<210> 48  
<211> 249  
<212> DNA  
<213> Homo sapiens

<400> 48  
gttttattgt tttcatgcat tcttaggtct tctactgcat gcttcctaaa aacaggggtca 60  
tcctgtctca gacctttcac tgaactcaaa ctgtgcttct cttgccagtc tcccgatgaa 120  
gggcctgcca gggaaataaa cttggttgag acaaaattct tgtaaataag ctcatagagg 180  
ggacagactc ctgctccatt cctcccaccc ctcacaaggt cttccaaatt agcgggaaac 240  
agtctaaat 249

<210> 49  
 <211> 436  
 <212> DNA  
 <213> Homo sapiens

<400> 49  
 aaaatgacct tcttttgetg ttttctgac cacaaggtgg attctgccc tcagggcctc 60  
 cctttacctt ggcacacaag ggcctccatc ctggggcacc ctcccacctg cccacccct 120  
 ccaacctaac tacttgccat ttcccaaata catcgtgcag tgccctggtg ctatcctgtg 180  
 gttcatgctg cttcctctgc ctgcaatatc ctttccctgc aatagcctct tccaccagc 240  
 agacgcctcc tcactctctt ggctcagctc taagtcatat cccctaggga agcttaccag 300  
 gatgctgcag tcagatggag tgtctcctcc tgggccccca cagaccctgt acttccttct 360  
 gtgacagcaa caatcccaca gcagtggaa cgtttacctg cctgagctcc tggagggcaa 420  
 ggatgccatg ttgctt 436

<210> 50  
 <211> 853  
 <212> DNA  
 <213> Homo sapiens

<400> 50  
 cctggataat aaatgcctaa ctctcaccaa ctaccttgcc atcatgggct tcttcgatca 60  
 gaaatctagt aagagagtat ggtgggggct gcgagaccca tcatcactac caaaaaacat 120  
 gaagtctttt cactttcaat atgtgaagac cttaaattatg taattggatg aatgatattt 180  
 gttagagtcaa agagaatgtg agttctccgt cttatgggta tagttattat gtaataatca 240  
 agtaatgtgg tcttttattg tcttaatctt tcacaaacca ttgctttcct actccaatag 300  
 gaagcctgat cagatactag atagctctta tatattgcc atgtatggac tgatgaaact 360  
 gaggctcaga gaggaagtaa aataaagcat ggctcccccc tactggttta ctatattcca 420  
 aagttattaa acacctggcc agcactgctg tgtagggtgt acactgcaca attgtgtccc 480  
 ttctaaggag tcagtgttca aatcacagac atcagagatt tattatgata atttttctgg 540  
 cagatggcag taaagtagct tattctaaca aaattgggaa tataaagact attttctaac 600  
 agatggaagt agttttttga agcaggtgag ccttttctctg atgctcactc aggtgctaga 660  
 tggactagca gaaagaatgg cgtcattgat gtccttttgt atgtgttacc cagtttaatc 720  
 ctgggggaatt ttactttttg ctggaaaagg agtcacccctc ccttgccaac cacatgtgtg 780  
 gttatacatt ggtattgcag agtgatgcca tttaacaagta atacatttga gttggcagat 840  
 ttcccaaggt ttc 853

<210> 51  
 <211> 383  
 <212> DNA  
 <213> Homo sapiens

<400> 51  
 tgaaaattga ccaacaacca gaagtgcag caacaacaaa ataccaagtc agtaaagatg 60  
 gagagaaata gggaagcagt gaaggtagat gtcatttctg tttttagtgg tggaatacaa 120  
 ggtgttcttg tgcttaaagg tcatgttctt gtgataaaac gcactgcaga gacaacatag 180

tttaattggc	tgaggcaggt	gactcccttt	aagcatcagg	gtggaacaaa	ctacacgaca	240
aaatgtaatt	ttaaaaacca	ctctcattca	aatgtaagaa	tatcaaagca	cccttaactc	300
attacatgag	tgaacaatg	agtgtcatgg	tctgaattgt	gttccccctc	ccaaaccctg	360
atgttcaagc	cttaaaccct	agt				383

<210> 52

<211> 3342

<212> DNA

<213> Homo sapiens

<400> 52

tgaaaattga	ccaacaacca	gaagtgacag	caacaacaaa	ataccaagtc	agtaaagatg	60
gagagaaata	gggagcagtg	aaggtagatg	tcattttctgt	ttttagtggg	ggaatacaag	120
gtgttcttgt	gcttaaagggt	catgttcttg	tgataaaacg	cactgcagag	acaacatagt	180
ttaattggct	gaggcagtac	ctactgcacg	acccccacg	tccgcctcct	gccattgcca	240
gcagggtgcct	tgcgccggta	cctggctgcg	cttattcatt	cattatgggtc	gctctgtcac	300
tgggtgccatt	atgtgtctac	atgcccactc	cctcagggtt	agaagtcgcg	ttgcccggca	360
acagaacaat	ctgctggctt	agcctttggc	caagttggca	gctggacgag	gacgctcaga	420
gcccagctct	tgagagttca	agtatccgac	agttccccac	tgctcccagg	agcggttacc	480
cgggcactct	gtgcccctca	ttcctgtttg	ggccaaggcc	gaggacctgc	gagtaccaca	540
gtaagccagt	gctgtgtgct	ccgagttcca	gggcatcccc	cagctcagcc	actacactga	600
gcacaaggac	tctgtggggc	ccaggagcag	gtagtacccc	ctttgggggtc	cacaacaccc	660
ggctgtcccc	agacttgtgt	ccagggaaga	tagtgttgag	ggccctcaag	gagagcgggg	720
cagggatgcc	tgagcagcac	aaggacccca	gagtccaaga	aaatcctgat	gatcagagaa	780
cgggtccccga	ggtcaccggg	gatgcacggt	ctgcattttg	gccccctgcg	gacaatggag	840
gccccctctc	ctttgtgccc	aggccccggg	ctctgcagac	agacctccac	gcccagagct	900
cagaaatcag	atataaccac	acatcccaga	catcctggac	gagctcgagc	accaaacgaa	960
atgccatctc	cagtccttac	agctccacgg	gaggcttgcc	gggggctaaag	cagaggaggg	1020
ggccagcctc	atcccgtgct	cagctgaccc	tcagttactc	aaagacagtg	agtgaggaca	1080
ggcctcaggc	tgtctcttcg	ggtcacacac	ggtgtgaaaa	gggggcagat	acatcaccag	1140
ggcagacaat	cgccccaacg	ggtggctccc	ccagatccca	tgactctagg	ccccgtagac	1200
gcaagattcc	cctgttgcca	cgcaggcgag	gggagccttt	gatgctgcca	cctcccttag	1260
agctggggta	ccgggtcacg	gctgaagacc	tgcacctgga	aaaagagacg	gcattccagc	1320
gcatcaacag	tgactgcac	ggtgaggaca	aggccatccc	ggactgcaga	ccctcacggc	1380
cttcccacac	tttgtcctca	cttgcaacag	gggcttcggg	tgggcctccc	gtttctaaag	1440
caccactat	ggatgcacag	caggacagac	ccaagtccca	agactgcctg	ggcctagtgg	1500
ccccctagc	atctgtgca	gaggccccg	ctacagctcc	cgtgtctggg	aagaagcaca	1560
gaccaccagg	accctgttc	tcctcctcag	atccccctcc	tgccaactct	tcccactccc	1620
gggactcagc	ccaggtcacc	tcgatgattc	ctgccccctt	cacagctgca	agcagggatg	1680
ccggcatgag	agaacaagg	tcggctcctg	cagctgcgcg	agcagccctt	ccccctcca	1740
cattgaacc	cacgtcgggg	tcgctactca	atgcagtgga	tggaggcccc	tcacatttct	1800
tggcctcagc	cacagctgca	gcacgtgccc	agaggtcaga	agtgagatat	aaccagagat	1860
cccagacctc	ccggaccaga	tcctgcctca	aacgaaatgc	cagctccagc	tcccacagct	1920
ctacggaagg	cctccaggaa	gtaaagcgga	ggagggggcc	agcctcatcc	cactgccagc	1980
tggcccacag	ttcctcaaac	acagtgagtg	aggacggacc	tcaggctgtc	tcttcgggtc	2040
accgctgtga	aaacaaggca	ggtacagcac	cagggcagac	acttgcccc	aggggtgggt	2100
ccccagatc	ccaggcctct	aggccccaca	tcaacactgc	actgcacgtt	gaggacaagg	2160

```

ccatctcgga ctgcagaccc tcacggcctt cccacacttt gtcctcactt gcaacagggg 2220
cttcgggtgg gctcccgtt tctaaagcac ccactatgga tgcacagcag gacagaccca 2280
agtcccaaga ctccctgggc ctactggccc ccctagcatc tgctgcagag gtccctctta 2340
cagctcccgt gtctgggaag aagcacagac caccaggacc cctgttctcc tctcagatc 2400
cccttctgc cacctcttac cactcccggg acacagcaca ggtcacctcg ctgattcctg 2460
ccaccttcac agctgcaagc agggatgccg gcatgagaag aacaaggctg gtcctgcag 2520
ctgccacagc agccctccc cctccacat tgaacaacac gtcggggtca ctactcaatg 2580
cagtggatgg agggccctca catttcttgg cctcagccac agctgcagca cgtgcccaga 2640
ggtcagaagt gagatataac cagagatccc agacctcccg gaccagatcc tgcctcaaac 2700
gaaatgccag ctccagctcc agctcccaca gctctacgga aggcctccag gaagtaaagc 2760
ggaggagggg gccagcctca tcccactgcc agctggccca cagtctctca aacacagtga 2820
gtgaggacgg acctcaggt gtctcttcgg gtcaccgctg tgaaaacaag gcaggtagag 2880
caccagggca gacactcgcc cccaggggtg gtcctcccag atcccaggcc tctaggcccc 2940
acatcaacag tgcactgcac gttgaggaca aggccatctc ggactgcaga ccctcacggc 3000
cttcccacac tttgtctca cttgcaacag gggcttcggg tgggcctccc gtttctaaag 3060
caccactat ggatgcacag caggacagac ccaagtcca agactgcctg ggcctactgg 3120
ccccctagc atctgctgca gaggtcttct ctacagctcc cgtgtctggg aagaagcaca 3180
gaccaccagg acccctgttc tctcctcag atcccttcc tgccacctct tccactecg 3240
gggactcagc ccaggacacc tcgctgattc ctgccccctt cacacctgca agcagggatg 3300
ccggcatcag aagaatgttt cgtgttcgaa attgtttgag gg 3342

```

<210> 53  
<211> 129  
<212> DNA  
<213> Homo sapiens

```

<400> 53
agctgtcata cttatcggtg ctgcttatta gtatTTTTat ggTTTgttat ttcaaaagaa 60
attcatttcc cataacaata ttattttctt aaatatgtta agctttaaaa taaaagcata 120
tcaaattgga 129

```

<210> 54  
<211> 201  
<212> DNA  
<213> Homo sapiens

```

<400> 54
catgccgtgg cccatgccc tttgcacagg gacgcagggg gttctcacac acaggcaggg 60
tccgccccca gctgccgtcg gcgtcagtc acacacatag gcttttgggc ggtgctggaa 120
gcttctggcc cctgaacgtt cccccaggc cccgtttcca gggaaaggga taggcaggcg 180
cacgctgcgg ccgtttccac a 201

```

<210> 55  
<211> 227  
<212> DNA

ggaagcagag	cagtgtctctg	accttcgctt	ctggaaccga	gaaaatgatg	ccatgtctgct	180
ttgttggtgt	gattgttggt	ggttttttgt	ggatgaattt	taaaatagta	tttgtgacta	240
tcatattcatg	tgtccactct	ttttaaaaat	gttacctttt	ctaggattgg	cagaatttgg	300
aattatatgt	cttattaaat	atgcttttgaa	agacagaagt	aataagttct	ggttaatctt	360
ttatagtgtt	tgtcttgga	gcaaataagta	tgagagagag	gtgtgagaat	gggaataata	420
atctaacata	tcaaaattag	agaaccccaa	accatcacat	tctttctctt	tgtgccattt	480
tagaattgag	aataccgtcc	ttcttactgt	ggttatat	ttacttttgt	atataaactt	540
gtagcagaaa	ataagattca	gtagcttaaa	ggggccaggc	actgtggctc	atgcccgtaa	600
tcccagtggg	ttagaaggct	gaggggaagg	atcacttgag	gcctggagtt	tgaaatcaac	660
ctgggcaaca	tagcaagact	ctgttccttc	aaaaaaaaat	ttttaaaaat	tagctgagca	720
tggaggtgca	tgctataat	cctagcaatg	attataccat	tacactccag	cctggatgat	780
agagtgcacac	cctgtctcaa	agagaaaaaa	aaaaaaaaaa	aattctgcgg	cgcaagaatt	840
cgc						843

<210> 59

<211> 221

<212> DNA

<213> Homo sapiens

<400> 59

cgggactgga	aggggtgtgcc	ctcgccgtcc	tcgccttcgt	cttgcacggg	acaagatgtc	60
acgattccga	atccaaacct	cagagacagc	ccccatccct	ctcgttagcc	accacacac	120
cccgtcagc	aacaataaca	acctgcattt	agggaaactg	tggtatgtgc	caggccacac	180
aggcattatc	tcattgtactc	ctcacaggca	ccttatcaag	g		221

<210> 60

<211> 535

<212> DNA

<213> Homo sapiens

<400> 60

gcacgtgggg	tcgggggtggg	ggcgaagggc	cgcttggcct	ctgtagggtc	gggactggaa	60
gggtgtgccc	tcgccgtcct	cgcttcgtc	ttgcacggga	caagatgtca	cgattccgaa	120
tccaaacctc	agagacagcc	cccatccctc	tcgttagcca	cccacacacc	ccgctcagca	180
acaataacaa	cctgcattta	gggaacgtgt	gttatgtgcc	aggccacaca	ggcattatct	240
catgtactcc	tcacaggcac	cttatcaagg	agatgctgtt	gttacctgca	ttttacagat	300
ggggaaactg	aggctcaatg	cattaaggac	tgccaggaag	ccctgtcctg	tggtgtgat	360
gatggaaatg	ttccctgtgt	tgttcagtat	ggtagtcact	ggccacaagt	gagcaactgga	420
aatgtgccta	ttgagactga	ggaactgatt	ttttcatttt	gtttaattgt	aattaaacag	480
ttacgtgtgg	ctgtggtatt	ggaaaaaaa	aaaacaaaaa	aaaaaaaaaa	aactc	535

<210> 61

<211> 514

<212> DNA

<213> Homo sapiens

<400> 61

```
cgtctcactg atatccccct cagttctccc aaatcacccct ttctgaaaca tacatccgat 60
catgtcattc ctttgcaaaa ctaagtttcc ctttgccactc aaaacaatat ctgaatgtct 120
tgctctgggt tctcaggccc cgcctctacc actggcctca gctcttcccc tctctccatt 180
gctcactgaa taacagccac caagacctcc ttgccattgc tcaaacatgc aaggcctaca 240
cctgccacag ggccttggca catgctattc catctgttta caatgcttgt ctccacatgg 300
ctacttcttt gtagcagttg gtctcagctc aaatgtcatg tccccaaacca gcctacctaa 360
agcagttctc cctacctagg cctttcttgc tcaccatgta aaagattcct atttagtttc 420
tgttattatc cttcttgctc tagaatggaa gccctacgag ggcaagatat ttttctgtat 480
cggtcactgc tatagcttca acaccaagaa catg 514
```

<210> 62

<211> 598

<212> DNA

<213> Homo sapiens

<400> 62

```
tttcttctgg tcttattcct ctggatctaa atatatcaac attgacatgt gaggtcagaa 60
ttttatcatt tgaaaaattt ttttcacttt actgaaaatt cagtcacttc ttctgaaga 120
aggaagcaat tgcatatcaa ttttcttcta ttccagctta atctatttat ttttctcttt 180
tacattaaaa cattctttta atgatatatg ctgcctgtaa atatttccca cccactttcc 240
agaggtaatc cactgttata aagtaagttt agtaaathtt ttttaattga attttctcaa 300
taggtcatta acgtgtttca aagttgaaaa attacaaaac tatgtgtcgt gaaaagtctc 360
cttctttccc ttgtgtccca agctacctag ttcttgagc cagttgatgt tatcagattc 420
tttggtattc ttccagacac acatggtatg cattatttga gcaaaggggc gtgggtgtgt 480
gtccctctgt ttttaagttc taaatgtag catgctacac atactttttt catatatattt 540
cttaagtaac ttcatttcat tatatgtatt ccactttgta aaattagata ctacatgc 598
```

<210> 63

<211> 648

<212> DNA

<213> Homo sapiens

<400> 63

```
tgaatttctt ctggtcttat tcctctggat ctaaatatat caacattgac atgtgaggtc 60
agaattttat catttgaaaa atttttttca ctttactgaa aattcagtc cttcttctctg 120
aagaaggaag caattgcata tcaattttct tctattccag cttaatctat ttatttttct 180
cttttacatt aaaacattct tttaatgata tatgtgcct gtaaatattt cccaccact 240
ttccagaggt aatccactgt tatcaagtaa gtttagtaaa ttttttttaa ttgaattttc 300
tcaataggtc attaacgtgt ttcaaagttg aaaaattaca aaactatgtg tcgtgaaaag 360
tctccttctt tcccttgtgt cccaagctac ctagtctctg gagccagttg atgttatcag 420
attcttttgt attctttcag acacacatgg tatgcatttt tgagcaaagg ggcgtgggtg 480
tgtgtccctc tgtttttaag ttctaaatgt tagcatgcta cacatacttt tttcatatat 540
tttcttaagt aactttattt cattatttgt attcagtttt gtaaaattag atactacatg 600
catgtgggtc aaaagtaaaa tgatgtaaag gctaataata tgtaatag 648
```

<213> Homo sapiens

<400> 55

```
catgccgtgg cccatgcccc tttgcacagg gacgcagggg gtctcacaca caggcagggg 60
ccgccccag ctgccgtcgg cgtcagtcca cacacatagg cttttgggcg gtgctggaag 120
cttctggccc ctgaacgttc cccccaggcc ccgtttccag ggaaagggat aggcaggcgc 180
acgctgcggc cgtttccaca atccgacctc gtagctgggg cgtgccg 227
```

<210> 56

<211> 271

<212> DNA

<213> Homo sapiens

<400> 56

```
catcttttta atattcagta tgaccgaata aagcactggg gctgccttag taacaatggg 60
tgtnctcaag gtaaacttct catgtgcttg tttcagttgt gagctcaatt agcctctttc 120
tcatgaaatg aatgcctttt tacttgaaag aatgactgag agccaggcta tggatattca 180
aacatgtatt tttcagacac ttcttgaaaa taagtgaagc aaacctgtta attacaaggg 240
aagcaatgac aatatttggt gccaatgata a 271
```

<210> 57

<211> 573

<212> DNA

<213> Homo sapiens

<400> 57

```
gggcaagaca gctgtgggag ttgttggttc cagtatcttt ttcttccttt ccggatggga 60
agagtgcatt tctcttggcc cacaatatgt tttgcacact aaggtgatgg catccttaga 120
aggaagcaga gcagtgcctt gaccttcgct tctggaaccg agaaaatgat gccatgctgc 180
tttgttggtg tgattgttgt tgggtttttg tggatgaatt ttaaaatagt atttgtgact 240
atcatttcat gtgtccactc tttttaaaaa tgttaccttt tctaggattg gcagaatttg 300
gaattatatg tcttattaaa tatgctttga aagacagaag taataagttc tgggttaatct 360
tttatagtgt ttgtcttggg agcaaatagt atgagagaga ggtgtgagaa tgggaataat 420
aatctaakat atcaaaatta gagaacccca aaccatcaca ttctttctct ttgtgccatt 480
ttagaattga gaataccgtc cttcttactg tggttatatt tttacttttg tatataaact 540
tgtagcagaa aataagattc agtagcttaa agg 573
```

<210> 58

<211> 843

<212> DNA

<213> Homo sapiens

<400> 58

```
gggcagacag ctgtgggagt tgttggttcc agtatctttt tcttcctttc cggatgggaa 60
gagtgcattc ctcttggccc acaaatgtgt ttgcacacta aggtgatggc atccttagaa 120
```

<210> 64  
<211> 601  
<212> DNA  
<213> Homo sapiens

<400> 64  
gaggttaagcc cattctcacc ctacaggcag ggtagggagg ggcacattct gagaagtgga 60  
tatcacaagt tgteccctcat gtggatccca tgacttgagt agtgggaaac tccaagctga 120  
tttgaagatt ctttatttga gagtggacct gcacacctag tgttcctggg tcagtccagg 180  
ggcgagcaga tcattgaagg actgcacctt tatectaggc tcaccaaatac cccaggtgta 240  
attatcaaac gaaagagaat agtccatagt taggaacaac taaatgcaaa ggatgaaata 300  
gcactgaatg aggaccagca ggaagagatc tcagaaaaca taagataatg gacttggttga 360  
catagatttt aaaggcctta ctcaaaactaa ataggcaaga ttgaaaatac ctatgaggaa 420  
gaggaaacta tacaatgacc tagcaaattt gaaaaaggaa ccaggaacaa cttgtagaca 480  
tgaaaagttc atgtctttat aataaaaaatc taacagatgg atttactagc agattacata 540  
aaactgaaga gagtgaatga cctggaaaagt agagaagaag aaatataatt tagagaacca 600  
c 601

<210> 65  
<211> 1216  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (58)..(125)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (1204)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (1206)  
<223> a, c, g or t

<400> 65  
tctcctgatc ttggacatca gaactcctga ttctcaagcc tttgggtttg gactggannn 60  
nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn nnnnnnnnnnn 120  
nnnnntaact ctaatacacc agtacatagg aaagattcct aaattcaaaa gccagaaggc 180  
tggtgttctg tteccacctt gccttttacc ttctgtgtgt tcttgatgaa gacacttcat 240  
gctccactat ttacttacct ctgaaacgaa gggctgaccc agatcagttg ttctctgacc 300  
tgcttggagg gactcagagg ctgtggagag tgaatatctc catcagctga tgcccttctc 360



aggcctcaat	ctccccctggt	ttgcagactg	tggccctcct	tggcctctgt	ggaatctggc	420
catttgaatc	ctgtcagccc	tgttttccat	caccaaagga	ctccggagga	actgtgccaa	480
gcaggctgtc	agccacgggc	aagctttctg	aaaaagacgt	gccaaactgca	gccacagaaa	540
gtccattccc	ttgaataact	ctgctaatat	ttgaaaatta	gttcccttgc	tcctgatcat	600
gctactgggt	atttgatat	aagagccaag	gatgagggca	atagaaaatt	aaaatcatgt	660
tctactcata	taaactgcac	agatatggaa	gggtaggtcc	tattacctat	aatcctggga	720
tttttagact	ctcactttca	ttggaccaga	gttgcccttag	ggacagtaaa	aacacaaaat	780
gctgggtatt	gttttcatca	agcaactact	gatagtgcac	atttaaataca	aaattcttct	840
aatcccaaac	tcagtaaaca	gatgctgtga	gcttagttct	gcccctctgg	cttcagattt	900
tacccactg	gatgtgccc	attctgagat	gacaagacgc	ttccagcttc	cacatgggtg	960
caatttggt	gtggaactgg	catgaaagca	cgtcactgtg	tcagcacctg	ggccaccaga	1020
tgaataacct	atgaacaaca	gctttggact	aaaatatgaa	ggggttggtt	tccttcaatc	1080
tccccctacc	ttcctcagaa	cctgctacaa	ggaaagattt	atagactcga	aagcgtcaat	1140
gactgattag	acccatatga	ttgctcctgc	tgtttctgat	attttaaaaa	attgtcttat	1200
aaangnataa	aaataa					1216

<210> 66

<211> 1430

<212> DNA

<213> Homo sapiens

<400> 66

gctcaccaat	gtgggtgggc	ctcattcaat	ccattgcaga	cttgaataga	actaaaagga	60
agaggaaggg	caaatttggt	ggctgcttga	gctgggatat	tcattcttct	cctgatcttg	120
gacatcagaa	ctcctgattc	tcaagccttt	gggtttggac	tggaggcacc	agctttcctg	180
ggcctccagc	ttgcagatgg	catatcatgg	aacttctcag	cctccaaatt	cataacteta	240
atacaccagt	acaatggaaa	gattcctaaa	ttcaaaagcc	agaaggctgg	gttcctgttc	300
ccaccctgcc	ttttaccttc	tgtgtgttcc	tgatgaagac	acttcatgct	ccactattta	360
cttacctctg	aaacgaaggg	ctgaccaga	tcagttgttc	tctgacctgc	ttggagggac	420
tcagaggctg	tggagagtga	atattttccat	cagctgatgc	ccttctcagg	cctcaatctc	480
ccctggtttg	cagactgtgg	ccctccttgg	cctctgtgga	atctggccat	ttgaatectg	540
tcagccctgt	tttccatcac	caaaggactc	cggaggaact	gtgccaaagca	ggctgtcagc	600
cacgggcaag	ctttctgaaa	aagacgtgcc	aactgcagcc	acagaaagtc	cattcccttg	660
aataactctg	ctaataattg	aaaattagtt	cccttgctcc	tgatcatgct	actgggtatt	720
tggatataag	agccaaggat	gagggcaata	gaaaattaaa	atcatgttct	actcatataa	780
actgcacaga	tatggaaggg	taggtcctat	tacctataat	cctgggattt	ttagactctc	840
actttcattg	gaccagagtt	gccttaggga	cagtaaaaaac	acaaaatgct	gggtattgtt	900
ttcatcaagc	aactactgat	agtgcacatt	taaatcaaaa	ttcttcta	cccaaactca	960
gtaaacagat	gctgtgagct	tagttctgcc	cctctggctt	cagattttac	cccactggat	1020
gtgcccatt	ctgagatgac	aagacgcttc	cagcttccac	atgggttgcaa	tttggtgtg	1080
gaactggcat	gaaagcacgt	cactgtgtca	gcacctgggc	caccagatga	ataacctatg	1140
aacaacagct	ttggactaaa	atatgaaggg	gttggtttcc	ttcaatctcc	ccctaccttc	1200
ctcagaacct	gctacaagga	aagatttata	gactcgaaag	cgtcaatgac	tgattagacc	1260
catatgattg	ctcctgctgt	ttctgatatt	ttaaaaaatt	gtctcataaa	gagatacaaa	1320
taaataatca	atggcaaact	tctggcatgg	gagagacatt	taggggaaaga	agtcattctca	1380
gcctccccc	acacacacat	gcacacacac	atacagctgc	aaacacaatt		1430

<210> 67  
 <211> 430  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> unsure  
 <222> (72)..(139)  
 <223> a, c, g or t

<400> 67  
 gggatattca tctttctect gatcttggac atcagaactc ctgattctca agcctttggg 60  
 tttggcctgg annnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
 nnnnnnnnnn nnnnnnnnnt aactctaata caccagtaca atggacagat tcctaaattc 180  
 taaagccaga aggetgggtt cctgttccca cctgccttt taccttctgt gtgttcctga 240  
 tgaagacact tcatgtcca ctatgtactt acctetgaaa cgaagggctg acccagatca 300  
 gttgttctct gacctgcttg gagggactca gaggetgtgg agactgtggc cctccttggc 360  
 ctctgtggaa tctggccttt gaatcctgtc agccctgttc tccatcacca aaggaatccg 420  
 gaggaactgt 430

<210> 68  
 <211> 829  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> unsure  
 <222> (240)..(354)  
 <223> a, c, g or t

<400> 68  
 gtatgtacta cccacataag tgggacactt tgaacaatga aatatagatg ttttcaccaa 60  
 agaagggagt cttatttttt tccgacttca gacaattcat cttcatccat taatttttcc 120  
 tttttgtaat atgtaccttt atgctaattt ttaatatgca aataacttac aaatatatgc 180  
 tcagcatttg agtacaggct gtgctttatt acatattaca tgcattgtatg caatgtactn 240  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
 nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnacaaaa 360  
 taaaatttgg aatgaagcag gaattatctt ggactattta taatttatta agatactaaa 420  
 taccgtcatt atgaaatggt ctcattaagt gatccctgtc taaagagttg cataatagtg 480  
 agacaataag gggcttagtg tatatttttt cttttgaaca taagctattg tacatttgtg 540  
 ccaacaggac ttctttatag agtctcattt tcctattaca atattatttt tgttattaag 600  
 tgaaacacct catatcacca ccactgctga gccagatata atagactgta ctgtgtaagg 660  
 ttcttaaaac tcacatctat aataaccaga cctctttttt tatattgatt caaattatgt 720  
 ttaatgctga attataagca aaacctacaa gaataaaatc attttatgct ttgaaactga 780  
 ctcctttttt aaaaaaagaa tgatcacacac taccaactcc ctcatctat 829

<210> 69  
<211> 541  
<212> DNA  
<213> Homo sapiens

<400> 69  
atagactagt aaagtctgtt tttatataaa agtgacacag gaagctgtta caatctagga 60  
atgggcaggt atggtcagtg gttgtcacia tagagccacc caaggagaca tctcttctcc 120  
agatcctaac agagtgcac ttgtgctttt cctaacagac ctgtcggact ggctttttct 180  
cttttaagga tatagagaaa gcaaaattag caaatctagt ttcttgtcac ttacttagga 240  
gggaggaaaa gagagaaaga atgcacttgg gaatgggagg ccttgctttt aatttaccag 300  
atgccagtta gagcgtaaat gccacacgag ccagagaggt caccttgctg agcatggctt 360  
gactgttgca gcctctttct ggcactccag acatgcgatg tctgttagct gattctagcc 420  
ttcagatgca gcccgagat gtaaccctga ggctggagtc ctgtggctct aatcccagac 480  
agaggcaact ccaccaagtt ctggtttggg tcagaaatag agggaaagga tgaatgaaag 540  
a 541

<210> 70  
<211> 696  
<212> DNA  
<213> Homo sapiens

<400> 70  
atagactagt aaagtctgtt tttatataaa agtgacacag gaagctgtta caatctagga 60  
atgggcaggt atggtcagtg gttgtcacia tagagccacc caaggagaca tctcttctcc 120  
agatcctaac agagtgcac ttgtgctttt cctaacagac ctgtcggact ggctttttct 180  
cttttaagga tatagagaaa gcaaaattag caaatctagt ttcttgtcac ttacttagga 240  
gggaggaaaa gagagaaaga atgcacttgg gaatgggagg ccttgctttt aatttaccag 300  
atgccagtta gagcgtaaat gccacacgag ccagagaggt caccttgctg agcatggctt 360  
gactgttgca gcctctttct ggcactccag acatgcgatg tctgttagct gattctagcc 420  
ttcagatgca gcccgagat gtaaccctga ggctggagtc ctgtggctct aatcccagac 480  
agaggcaact ccaccaagtt ctggtttggg tcagaaatag agggaaagga tgaatgaaag 540  
aagatacaaa gaaataatga acaagtgaat tctttcagct gcttacttgg gtggtctgca 600  
ggcagcaaga gacaggaagg aggtgtgtgt ggggtccttg ttcgaggcag tgggagattt 660  
gctcagaggg gttgtgtggg aagtgaagaa aggggt 696

<210> 71  
<211> 1207  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (957)  
<223> a, c, g or t

<400> 71

```
gcagtgccag gacctctccc ggaggcgggg cagagcagca gcttctcggc cctgtgccga 60
gccaggcct gcacccctaa ggcaggcact gctccgtgat ccaggaacca cctctctcta 120
cagctgggag tgagcagtea gagagggaga cagccttgcc cggtgctacc cagcaagcta 180
gtcaccgagt gggcagaggg aggagcggcc ctcaccgat gtcaagcagc ctgggtcccc 240
agtccagctc tgcctgtccc tcgcaataac gcctcagtga cgaccatttg tgagccatct 300
ctctgtctca ggcacggtgc tacatgccaa cgaaacctgc tcccattgaa ccctggccag 360
ccagtgaaga aagggttggg cctgggaggt gccactttac agacaggggc accaaggggc 420
aggggtggcag gagggccacc ggacgttccc catgaagtag cagtcccagc atccacaccc 480
agcaggcacc acgctggccc gcagcctccc tgccagcacg cctggcttcc cggcctcgga 540
acttgatctg ctccctcttc cggacactgg ggctcctgcc aagtccctgg ctgggcagca 600
actgctgaac attctaagaa atccctccca gggttttctc aggagcccgg gtggggcagg 660
aagtccccag gggctgaggg gaccgtggcg gcaggtggca cccagagcag cactctcctg 720
gggcccaggc tgttgggcca gaggcaggac tgtgaggcct agtgtagggc ctccctgccag 780
tgcccgccac ctacttgtgg ggctgggggt tccccagca ggttgggctc cccacctgac 840
acactcacag accttgtgcc ttggagagcc agtgttcccg gggccacata gctatgccgc 900
ccaggggctg ggcctgtccc agctctggtc ccccgccccc aggtcctgga cgctggntcc 960
gcgcagcagc aggcggcctc cggaggacac gatgtgactg gctgccgcta cgtcgactc 1020
agatgagtct gcgccggatc gacctgctgc cgagtccctgc cggacaggca caggcaggga 1080
gtgaaaatta tctaccctt tttatttctt aataactgaa tgaaaataaa cattggtggt 1140
ttgacaaata actacatatt ttcaaaccga gccagtccag gggatgcagt ttccagggtgc 1200
gttatgc 1207
```

<210> 72

<211> 263

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (231)

<223> a, c, g or t

<220>

<221> unsure

<222> (239)

<223> a, c, g or t

<220>

<221> unsure

<222> (242)

<223> a, c, g or t

<220>

<221> unsure

<222> (248)

<223> a, c, g or t

<220>

<221> unsure

<222> (259)

<223> a, c, g or t

<400> 72

gtcctacttc aataatttaa aaaaatattc tgggatttgc attcctcaaa tttcagccct 60  
cattttactt tacctgtcta cagtgttttg cgcaattgac cactccttcc tttttgaagt 120  
attttctttc cttggtttct gaaatactgt tatcttctta tctcactggc catacattct 180  
agtctccttt gctagtttat tatggttttc atcttctcaa caacaatttt ntttttttng 240  
gnnggagangg agtcttgcna tgt 263

<210> 73

<211> 579

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (547)

<223> a, c, g or t

<220>

<221> unsure

<222> (555)

<223> a, c, g or t

<220>

<221> unsure

<222> (558)

<223> a, c, g or t

<220>

<221> unsure

<222> (564)

<223> a, c, g or t

<220>

<221> unsure

<222> (575)

<223> a, c, g or t

<400> 73

tggtgtttga gtcttaaaaa ttgtatacca gtgctaattg ggatatacca aactttttgt 60  
ctcttagtaa ttagttttgt tttgttttgt tttgttttaa tgttgtgctt atcttaaggt 120

gtaaatgcag	acaaagttag	aattgaagct	gccgaaatgc	tattagcaaa	tcttagacat	180
ggtggtactg	tggatgagta	tctgcaagac	caggtaatga	cacatttagg	ttaaaaaccc	240
tctaacctgt	tagatttgaa	tatgtggtag	attgaatata	aatttaaata	attgactttc	300
agacactaat	tagcaagtcc	tacttcaata	atttaaaaaa	atattctggg	atttgcattc	360
ctcaaatttc	agccctcatt	ttactttacc	tgtctacagt	gttttgcgca	attgaccact	420
ccttcctttt	tgaagtattt	tctttccttg	gtttctgaaa	tactgttatc	ttcctatctc	480
actggccata	cattctagtc	tcctttgcta	gtttattatg	gttttcatct	tctcaacaac	540
aattttnttt	tttnggngg	aganggagtc	ttgcnatgt			579

<210> 74  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 74						
ctctgttcct	tgctcatctt	catggtgatt	gggggtagat	cagatgagtg	tgtaaaagcc	60
ccttgaaagc	tggaaagagc	ttaacaaata	tcagctgttg	ccatgaaaga	atatttgctt	120
actttccatt	gtgtataaga	taacgataat	catagaatta	atattattca	acttccttgt	180
gtcttttgca	catttctgta	cagtcctgtt	tttgtttggt	actgtcattc	tcaaagtact	240
caagttgaat	tttgtcactt	tggattttct	ccaggaatat	gtgagagaca	tttaggtctc	300
taatgatgaa	gtattttcta	ggcgtaatgc	aaaagattg			339

<210> 75  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

<400> 75						
caacgacaga	taacttcgtg	atggaaaatg	taggtctcct	tagtagttag	ccctctgcc	60
ggtgacttcg	tttccacctc	cccttatata	ttgttcttcc	ttcctctcta	aattctctaa	120
atctctgctt	atacagagca	atctggctct	ctctggcctc	tccagtcata	atacatcata	180
ctcacattca	ccatcttgag	aagtgcagta	agccacataa	atgcagcaga	agtaccttat	240
gcagtcctag	gaggctgtgg	ttttgagttg	cttttttttt	tcttttggga	gacggagcc	299

<210> 76  
 <211> 247  
 <212> DNA  
 <213> Homo sapiens

<400> 76						
tgtatatatga	gctcctactg	tgtggcaagg	cctatggtaa	gcattttatt	ttggtaactt	60
gtttaatcct	cattacaatt	ctgtggtaaa	tgctattata	tgtttttata	ttgaagggat	120
gaaatggagg	ctcagagggg	tatgtagtag	ctaaatgtta	gagctaggat	tganacccaa	180
attgacttct	gagtatagat	ttcccccaa	ctgtatgata	cttcatattt	ggagtcagct	240
tgaagta						247

<210> 77  
<211> 254  
<212> DNA  
<213> Homo sapiens

<400> 77  
tgtatatattg agctcctact gtgtggcaag gcctatggta agcattttat tttggtaact 60  
tgtttaaatcc tcattacaat tctgtggtaa atgctattat ctgtttttat attgaaggga 120  
tgaaatggag gctcagaggg atatgtagta gctaaatggt agagctagga ttgaaaccca 180  
aattgacttc tgagtataga tttccccca actgtatgat acttcatatt tggagtcagc 240  
ttgaagtaat tcac 254

<210> 78  
<211> 504  
<212> DNA  
<213> Homo sapiens

<400> 78  
tgatttgatt tggttttaaa atagaatagt tgtactctga gggaggaggg aaatgcttaa 60  
acaatactaa gaattccatt ctttagagac aaattactta gaagttgata gtgacatatt 120  
gaaagggttg ttgattgttg gattattcag gtgatgaaga tgatggtagg ggccatggcg 180  
gctgagggag aatgagtctt aaacactgag gaggcacaaa agattgggtg gctggatata 240  
ataggaaact ggaacgaaag aaggagaaga gaatggcgat actgataaaa aatagaatga 300  
aagaagatgt gtggaaaaga aagtttctt ttgaaggctt gatttttgaa gtgatggcag 360  
atatagatat acatccaata gatgagtggg aaaagtaaata caaacagaaa tgaaaaattg 420  
agtccaagat tgatgggaga ctaataatgg ggaggactga gcctgggggc aactacatta 480  
gtaacagtgg caggttttgt tttt 504

<210> 79  
<211> 210  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (80)..(99)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (173)  
<223> a, c, g or t

<220>

<221> unsure  
<222> (175)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (206)  
<223> a, c, g or t

<400> 79  
gtccctctag agaaccctga ctaatacagg tggttcctgg ctcatggcag tgtgactcca 60  
gtctttacat ggcgttcccn nnnnnnnnnn nnnnnnnnnc aaatttcctc ttttcataag 120  
gaccgtggta ttggataggg gtccacccta cttegatatg accttatttt aantncatct 180  
ttgatgaccc tgtttccacg taaggncaca 210

<210> 80  
<211> 161  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (116)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (148)  
<223> a, c, g or t

<400> 80  
gagggtcaga agcagaaaga tgacatcata agaaagactc aactggccat ttttggcttt 60  
gaagggtggaa aggggacctg agtccaggca tgtgggcagc ctggagaagg cgaganaatg 120  
gattcttccc cagaatccct ggaaaggnaa gtggccctaa c 161

<210> 81  
<211> 112  
<212> DNA  
<213> Homo sapiens

<400> 81  
tagcaccttt taataactct ttttagagta atttagagca aactagataa attttaatat 60  
atatctcatt gcatactttt atgtaacttt gtcttagaaa aacaagagtt ct 112

<210> 82



<211> 277  
<212> DNA  
<213> Homo sapiens

<400> 82  
tgaaatgatg acaccagtag aatatggtga gatatgtata cacaatgtaa tacctagagt 60  
gacaatttaa aaacctatac aaagagtgac acataaataa acaaaaacaa cataaaaaata 120  
aaaatataat tctaaaaata ttcaagtagc caattggaag gtggaaaaaa gaaaaagaac 180  
aaaaaataga acagcactaa acaaaaaata aaatcgaga cctaggccct gacatatcaa 240  
taattatatt aacatgtaaa tgggtctaaat tttacca 277

<210> 83  
<211> 637  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (92)..(196)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (230)..(316)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (367)..(428)  
<223> a, c, g or t

<400> 83  
gtccttnggt gttgcaccaa acaggctaag aagcaatgac attgattatg aggaacttgg 60  
aactcagatg tattaatttc ctattgtgtc tnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 120  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180  
nnnnnnnnnn nnnnnncact ttctttctgt aggccttagg agagaatcta gnnnnnnnnn 240  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300  
nnnnnnnnnn nnnnnnccaa gtccttctca cactgctgtc tttttggttc tctctcttgc 360  
ctgcctnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
nnnnnnncat agttgattag cagccttaat ccattctgtaa ttttaattcc cttttgccag 480  
gtaatgtggc cattatcttg cctacaacct cagaggatgt tgataatgta aagggtagtg 540  
aattggggag ttcatagggt ttgatagttg acaaatagag agtgtagtat taggtagggg 600  
ttttttggca ggggtgcagtg gcccatacct gtaatgt 637

<210> 84  
<211> 577

<212> DNA  
<213> Homo sapiens

<400> 84  
caggcataag ccaccacacc tagccaagaa accattcttt gaacacaagc aaatatactt 60  
tgagagaaaa ttttaataatc ctggcagggc tacattcaac ataattctgt tatgggggaa 120  
ggcagcatgc tttggctgct cagtgaagct tgttctgtac aaccaagtga aattgctaaa 180  
aaaagattct cctgtataca gtaacttaaa gtgatgcagt ctacttaaga tcagatctga 240  
gttacaaaat caaaagtgc agctcctatg ttctttttaa gtccaatctc tttttttcat 300  
tgttgtgctc caaatgcctt gagtacctga tgtagagtag gtggctaata aatattgggt 360  
gaatttcttg aacgaatctg ttatgaaaag atctactttg ctcatctctg tgccccaata 420  
gcaggagctt gaggagaagg agaaaaatatt gggtcagagc ttttgattaa tatgtatgat 480  
tctattaaac gggttcacta aacccaaaaa ggcaaggaaa acagttaaac caagagtctt 540  
gaggttcaag tcttgtgatg attaaatcat catccta 577

<210> 85  
<211> 687  
<212> DNA  
<213> Homo sapiens

<400> 85  
ttcccatggt agccagggct ggtcttgcac tctgaacctc agggatatcac ccccccttgg 60  
gtcaggggct catggctgat attacaggca taagccacca cacctagcca agaaaccatt 120  
ctttgaacac aagcaaatat actttggaga aaaatttaat aatcctggca gggctacatt 180  
caacataatt ctgttatggg ggaaggcagc atgctttggc tgctcagtga gctatgttct 240  
gtacaaccaa gtgaaattgc taaaaaaaga ttctcctgta tacagtaact taaagtgatg 300  
cagtctactt aagatcagat ctgagttaca aaatcaaaag tgacagctcc tatgttcttt 360  
taaagtccaa tctctttttt tcattgttgt gctccaaatg ccttgagtac ctgatgtaga 420  
gtaggtggct aataaatatt ggttgaattt cttgaacgaa tctgttatga aaagatctac 480  
tttgctcatc tctgtgcccc aatagcagga gcttgaggag aaggagaaaa tattgggtca 540  
gagcttttga ttaatatgta tgattctatt aaacgggttc actaaaccaa aaaaggcaaa 600  
ggaaaacagt taaaccaaga gttcttgagg ttaaagtctt gtgatgatta aaatcatcat 660  
cctaagatga tgatgacata aactttc 687

<210> 86  
<211> 77  
<212> DNA  
<213> Homo sapiens

<400> 86  
tgtcgtttta caactgtcgt gactggtgaa aaccctgtgc gttaccctaa cttaatctgc 60  
cttgcagca catcccc 77

<210> 87  
<211> 575

<212> DNA  
<213> Homo sapiens

<400> 87  
cacacacgtg cacacacaat actcacttaa caaacattta atttattgaa catttattat 60  
atgccaaagc tgggtataaga caccaaaaaga gtaagacaga aagtattctt ccctggagct 120  
ttgtctgact ttccaagctt tattaggcat caaacaaaac tgaagtgcct ttttaagattc 180  
aagtctccta cgtcgtctaa ggcagagtaa gtagccttca gtactatatt ttactctaata 240  
tttttttttaa cacaatggca gtactataag tatgaaactt tgggtataaat gtcagattct 300  
agattgtgct cctgctttct gcacactcta atatttttaa acatctcgaa aatacagagt 360  
ggcagcaaaa ttacctgtaa aaacatacta gctcaagagt ttgacaggct caaaaataat 420  
taccttaaat acattaaaca agaagtgtat ttgttataca gtatgtactg accaaaatta 480  
aagtgcaggt tgtacagaaa gagctgcttg tgttatttta tgagcaaaat gaaaagctaa 540  
tttggtagat ttaaaaatca gcatctagca aattc 575

<210> 88  
<211> 663  
<212> DNA  
<213> Homo sapiens

<400> 88  
cagtaattcg gcacgaggcg cacttttttt tttttttttt tataaaaaca gtcaacactt 60  
gccccaccct actcccagca tatgcacaca cacacgtgca cacacaatac tcacttaaca 120  
aacatttaaat ttattgaaca tttattatat gccaaagctg gtataagaca ccaaagagt 180  
aagacagaaa gtattcttcc ctggagcttt gtctgaactt ccaagcttta ttaggcatca 240  
aacaaaactg aagtgccttt taagattcaa gtctcctacg tcgtctaagg cagagtaagt 300  
agccttcagt actatatttt actctaattt ttttttaaca caatggcagt actataagta 360  
tgaaactttg gtataaatgt cagattctag attgtgctcc tgctttctgc acactctaata 420  
attttttaaac atctcgaaaa tacagagtgg cagcaaaatt acctgtaaaa acatactagc 480  
tcaagagttt gacaggctca aaataaatta ccttaaatac attaaacaag aagtgtattt 540  
gttatacagt atgtactgac caaaattaaa gtgcagggtg tacagaaaga gctgcttggtg 600  
ttattttatg agcaaaatga aaagctaatt tggtagattt aaaaatcagc atctagcaaa 660  
ttc 663

<210> 89  
<211> 80  
<212> DNA  
<213> Homo sapiens

<400> 89  
gattggatgg tgtttcagaa aacaagcctc tattcaaata atattttact ataattcttg 60  
ttaaaaatac tgtatactaa 80

<210> 90  
<211> 496

<212> DNA  
<213> Homo sapiens

<400> 90  
gccgactttt tttttttttt tttttgtatt tttagtagag acgggggtttc aacatggttg 60  
ccaggatggg cgtgatctcc tgacctcgtg atccgctgcc ttggtctccc aaagtgctgg 120  
aattacaagc gtgacgcact gtgcccagct tagtatacag tttttttaac aagaattata 180  
gtaaaatatt atttgaatag aggcttggtt tctgaaacac catccaatct gaaagtagaa 240  
gaaaaaggct ggggtgtggtg gctcatgcct gtaaccccag cactttggga agctgaggcg 300  
ggcggatccc ttgagctcag tttgagacca ggctgggcaa ctccatcttt accaaaaaat 360  
acaaaaatga gccaggcatg gtggtgtaca cctgtggtcc cagcggctct gggggctgag 420  
gtgggaggaa ggcttgggccc taggaggtgg aggttgcagt gagccaggat tgtgccactg 480  
ccgatagagc cagata 496

<210> 91  
<211> 385  
<212> DNA  
<213> Homo sapiens

<400> 91  
gaaatgggtc cggacagggtt aaaacaaaaa tccaatactg ccgtagtttc taggtggata 60  
taacattttt agaaatctta taatacaata ttaacttcat tggctgaacc caagcctttc 120  
agcctttata gatttgccat gatcctaata catataagca ttcattgtat tcattattaa 180  
ttacttcata gattcagtgt gtgacgaagg gagatgattt ttaacaaata ataaagtga 240  
atgatctagt tttgctatgt tgnttgagca acatcaaata gttttgctaa aatagataat 300  
ttatagtgat ttttttttca ctatggnatt ttcttaaata tattaagggc tttcattttc 360  
tgataccacc tagtttaatt gggggg 385

<210> 92  
<211> 500  
<212> DNA  
<213> Homo sapiens

<400> 92  
gaaatgggtc cggacagggtt aaaacaaaaa tccaatactg ccgtagtttc taggtggata 60  
taacattttt agaaatctta taatacaata ttaacttcat tggctgaacc caagcctttc 120  
agcctttata gatttgccat gatcctaata catataagca ttcattgtat tcattattaa 180  
ttacttcata gattcagtgt gtgacgaagg gagatgattt ttaacaaata ataaagtga 240  
atgatctagt tttgctatgt tgtttgagca acatcaaata gttttgctta aaatagataa 300  
tttatagtga ttttttttcc actatggtat tttcttaaata atattaagtg cttttcattt 360  
tctgatacca cctagtttaa ttgggggtga atatcagaga aattagaatg ttatttcagc 420  
tgaaggagta cagttttttt tttctcttct tagagaatat agtgcctcag atacagtcca 480  
caacaaaaat tttggttttag 500

<210> 93

<211> 364  
<212> DNA  
<213> Homo sapiens

<220>  
<221> unsure  
<222> (19)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (21)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (35)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (40)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (60)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (70)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (92)..(93)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (95)  
<223> a, c, g or t

<220>  
<221> unsure  
<222> (97)  
<223> a, c, g or t

<220>  
 <221> unsure  
 <222> (121)..(122)  
 <223> a, c, g or t

<220>  
 <221> unsure  
 <222> (131)  
 <223> a, c, g or t

<220>  
 <221> unsure  
 <222> (148)  
 <223> a, c, g or t

<400> 93  
 ttaggtccaa actcaggtna ncaaaaactag tcccntcagn ccaattgctt gtacatttcn 60  
 acaggcaccn ctttggcaaa cccacatgga tnntnanaaa tggagaatga ggagacagcc 120  
 nnatattaat nagatgtatc aaactgtnac aatatgtgaa gagtattgtg tatatacaaa 180  
 caggaaacaa ttgaaagcct tcaacatgtg tgggtggggg gagagataac tgaattaaca 240  
 ggccatgtag taaaacttaa aatcaaatcc agtagtcttg aaggatatag aattgttttag 300  
 ttttgaaggt atagtaatta agtactgcg c actaaaaaaa actgaccaa aggccgggtg 360  
 cggt 364

<210> 94  
 <211> 1646  
 <212> DNA  
 <213> Homo sapiens

<400> 94  
 ttaggtccaa actcaggtna ncaaaaactag tcccntcagn ccaattgctt gtacatttcn 60  
 acaggcaccn ctttggcaaa cccacatgga tnntnanaaa tggagaatga ggagacagcc 120  
 nnatattaat nagatgtatc aaactgtnac aatatgtgaa gagtattgtg tatatacaaa 180  
 caggaaacaa ttgaaagcct tcaacatgtg tgggtggggg gagagataac tgaattaaca 240  
 ggccatgtag taaaacttaa aatcaaatcc agtagtcttg aaggatatag aattgttttag 300  
 ttttgaaggt atagtaatta agtactgcg c actaaaaaaa actgaccaa aggccgggtg 360  
 cgggtggctca cgctgtaat cccagcactt tgggaggccg aggcgggcgg atcacctgag 420  
 gtcaggagtt cgagaccagc ctggccaaca tggtgaaacc ccgtctctac taaaaacaca 480  
 aaaattagcc gggcatgggtg gctcacgcct gtaatcccag cactctggga ggccaagaac 540  
 atgctgatgg tttatgccac aagttgacaa ctgtgtgtcc aactgtgaaa cctcagactc 600  
 aagggtctagc aaaagatgct tgggaaatcc ctcgagaatc tttgcgacta gaggttaaac 660  
 taggacaagg atgtttcggc gaagtgtgga tgggaacatg gaatggaacc acgaaagtag 720  
 caatcaaaac actaaaacca ggtacaatga tgccagaagc tttccttcaa gaagctcaga 780  
 taatgaaaaa attaagacat gataaacttg ttccactata tgctgttgtt tctgaagaac 840  
 caatttacat tgtcactgaa tttatgtcaa aagggtgctta ttccctttct attcgtgatt 900  
 gggatgagat aagggggtgac aatgtgaaac actacaaaat taggaaactt gacaatgggtg 960

gatactatat	cacaaccaga	gcacaatttg	atactctgca	gaaattggtg	aaacactaca	1020
cagaacatgc	tgatggttta	tgccacaagt	tgacaactgt	gtgtccaact	gtgaaacctc	1080
agactcaagg	tctagcaaaa	gatgcttggg	aatccctcg	agaatctttg	cgactagagg	1140
ttaaaactagg	acaaggatgt	ttcggcgaag	tgtggatggg	aacatggaat	ggaaccacga	1200
aagtagcaat	caaaacacta	aaaccaggta	caatgatgcc	agaagctttc	cttcaagaag	1260
ctcagataat	gaaaaaatta	agacatgata	aacttgttcc	actatatgct	gttgtttctg	1320
aagaaccaat	ttacattgtc	actgaattta	tgtcaaaaga	gctccacaga	cgctgcacag	1380
ctgtgaactc	aactccagcc	ctcagggaag	gcagctcgca	aagacctagg	gcagcccgcc	1440
gatttcccaa	aaagagcact	gagaacccag	caagcgtttt	tctatatgat	gctggcgcca	1500
gccagtgag	ggaagtgcaa	caagtatggt	tctcctgctt	gtcaactgtg	gaaacagcga	1560
ccttgaaagt	ggaggagcca	cagctggaat	cgtgttcgtc	tgaatacacg	cacctttcct	1620
atgagccttg	taaagccagt	cgttga				1646

<210> 95

<211> 415

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (109)..(170)

<223> a, c, g or t

<220>

<221> unsure

<222> (323)

<223> a, c, g or t

<220>

<221> unsure

<222> (325)

<223> a, c, g or t

<400> 95

gagagtgttt	tagcccagaa	tagtgaacc	ctcaggcaaa	gtttataaaa	attaatacca	60
ctgcagaaaag	tgattaaata	ccatggactg	taggtttagg	tttctgctnn	nnnnnnnnnn	120
nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnnnnnnnnn	nnngtgcata	180
atggagattt	taatagtagc	catctcataa	ggtggttgca	aaggttaaat	gtgttaatat	240
gcatgatgca	catagaacaa	tgcctagcac	atagtagaga	tacataatca	ctactatata	300
ctggtaccag	tananggtca	ggtcttatgg	acctaaggtc	atataactta	gtctcttcca	360
agattcttga	aatgatttct	caaaacaaga	gaatataaag	aagaaacggt	atgaa	415

<210> 96

<211> 504

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (212)..(231)

<223> a, c, g or t

<400> 96

```
atataccta atgagcatgc ccattattcc tctgtcctat gaaacaaaaa tggcattttt 60
caatggattt gttttggata tataattagt tcatttgctg tttagaagcc ttgccaaaag 120
tgtttagatt ttggtactgc aactgctttc ctcttgccca gaaatgtttt gcctcttctt 180
ttcctacaag ttaaagtgtc taaatataaa gnnnnnnnnn nnnnnnnnnn naattcta at 240
gtgaaaggca ctagctgtct aatagggttc atgtatcatt actattacta tatgtatctt 300
aatgtagtct atgtaggttt ttatcagaaa gtgtaccttt ctatgggtta ttattttata 360
ttctggggcc ttttatctca gatataaacc atgaacagta atgatatgcc ctgacatata 420
aatcttagta aaaagtgatt aaaaatctaa aactcagtat gaaaaacata tcttgtagc 480
ataaattaaa accttttatt gttt 504
```

<210> 97

<211> 516

<212> DNA

<213> Homo sapiens

<400> 97

```
atataccta atgagcatgc ccattattcc tctgtcctat gaaacaaaaa tggcattttt 60
caatggattt gttttggata tataattagt tcatttgctg tttagaagcc ttgccaaaag 120
tgtttagatt ttggtactgc aactgctttc ctcttgccca gaaatgtttt gcctcttctt 180
ttcctacaag ttaaagtgtc taaatataaa ggggtatgtg tgtgtgtgtg taattcta at 240
gtgaaaggca ctagctgtct aatagggttc atgtatcatt actattacta tatgtatctt 300
aatgtagtct atgtaggttt ttatcagaaa gtgtaccttt ctatgggtta ttattttata 360
ttctggggcc ttttatctca gatataaacc atgaacagta atgatatgcc ctgacatata 420
aatcttagta aaaagtgatt aaaaatctaa aactcagtat gaaaaacata tcttgtagc 480
ataaattaaa accttttatt gtttaaaaaa aaaaaa 516
```

<210> 98

<211> 400

<212> DNA

<213> Homo sapiens

<400> 98

```
aattagatct ttctgcaat aaggatctag gtggagggtt tgaagactcg ccggctcagt 60
tggtcatgct aaagcatcta caagtcctag atcttcacca gtgctcacta acagcagatg 120
acgtgatgtc actgaccag gtcattcctt tactttcaaa tcttcaagaa ttggatttat 180
cagccaacaa aaagatgggc agttcttctg aaaacttact cagcaggctc cgatttttac 240
cagcattgaa gtcattagtt atcaacaact gtgctttgga gagtgagact tttacagctc 300
ttgctgaagc ctctgttcac ctctctgctc tggaagtatt caacctttct tgggaacaag 360
tgtgttggtg ggcaacttga agctgcttct gggaaacact 400
```



<210> 99  
 <211> 2352  
 <212> DNA  
 <213> Homo sapiens

<400> 99

```

atatttgattg aacacaggct tgacagaatc ttcttttctt cttagaaatc ctagaaaaca 60
gaaagcaaca ggaagatgtc ttattgggaa ctacccccat caacttcacc atgagtcaaa 120
caaggaagaa aacttcctca gaaggagaaa ctaagcccca gacttcaact gtcaacaaat 180
ttctcagggg ctccaatgct gaaagcagaa aagaggacaa tgaccttaaa acaagtgatt 240
cccaaccag cgactggata cagaagacag ccacctcaga gactgctaag cctctcagtt 300
cagaaatgga atggagatcc agtatggaga aaaatgagca tttcctgcag aagctgggca 360
aaaaggctgt caacaagtgt ctagatttga ataactgtgg attaacaaca gcggacatga 420
aagaaatggg agaagcattt gagatgattc ctgaacttga agagctaaat ttgtcttgga 480
acagtaaagt gggaggaaat ttgcctctga tccttcagaa gttccaaaaa gggagcaaga 540
tacaaatgat tgagcttggtg gcttgctccc tcacgtcaga agatgggaca tttctgggtc 600
aactgctacc tatgctgcaa agtctcgaag tacttgatct ttccattaac agagacattg 660
ttggcagctc gaacagtatt gctcagggat taaaaagcac ctcaaactctg aaagtactga 720
agttacattc atgtggatta tcacaaaaga gtgtcaaaat attggatgct gcttttaggt 780
atttgggtga gctgaggaaa ttagatcttt cctgcaataa ggatctaggt ggagggtttt 840
aagactcgcc ggctcagttg gtcattgctaa agcatctaca agtcctagat cttcaccagt 900
gctcactaac agcagatgac gtgatgtcac tgaccaggt cattccttta ctttcaaate 960
ttcaagaatt ggatttatca gccacaacaaa agatgggcag ttcttctgaa aacttactca 1020
gcaggctccg atttttacca gcattgaagt cattagttat caacaactgt gctttggaga 1080
gtgagacttt tacagctctt gctgaagcct ctgttcacct ctctgctctg gaagtattca 1140
acctttcttg gaacaagtgt gttggtggca acttgaagct gcttctggaa acactaaagc 1200
tttccatgtc tcttcaagtg ctgaggctga gcagctgttc cctggtgaca gaggatgtgg 1260
ctctcctggc atcggtcata cagacgggtc atctggccaa actgcaaaag ctggacctga 1320
gctacaatga cagcatctgt gatgcggggg ggaccatgtt ctgccaaaac gtgcgggttc 1380
tcaaagagct aatcgagctg gatattagcc ttcgaccatc aaattttcga gattgtggac 1440
aatggtttag acacttggtt tatgctgtga ccaagcttcc tcagatcact gagataggaa 1500
tgaaaagatg gattctccca gcttcacagg aggaagaact agaatgcttt gaccaagata 1560
aaaaaagaag cattcacttt gaccatgggt ggtttcagta aactgatttc ccatgtccta 1620
ctaagctaca aaccattctc caaaggaaaa gaacatgaac gaattccaga gtcatgaact 1680
gaatttcaac ttctgggcca tttaattggga cttatattac aagagctttg taaatatata 1740
tatatatatt atatatatat gtaatataca tatatacaca tatatataat atacatatat 1800
aatacacata tatatgtaaa tatatatata atatctaata tgagcatgcc attattctct 1860
gtctatgaaa caaaaatggc atttttcaat ggatttggtt tggatatata attagtccat 1920
ttgctgttta gaagccttgc caaaagtgtt tagatttttg tactgcaact gctttcctct 1980
tgcccagaaa tgttttgcct cttcttttcc tacaagttaa atgttctaaa tataaagggg 2040
tatgtgtgtg tgtgtgtaat tctaattgtg aaggcactag ctgtctaata gtttcatgta 2100
tcattactat tactatatgt atcttaattg agtctatgta ggtttttatc agaaagtgta 2160
cctttctatg gtttattatt ttatatcttg gtgcctttta tctcagatat aaacctgaa 2220
cagtaatgat agtcaactgac atataaatct tagtaaaaag tgattaaaaa tctaaaactc 2280
agtatgaaaa acatatcttg ttagaataaa ttaaaacctt ttattgttta aaaaattggt 2340
aaaaaaaaaa aa

```

<210> 100  
<211> 565  
<212> DNA  
<213> Homo sapiens

<400> 100  
atTTtgattg aacacaggct tgacagaatc ttcttttctt cttagaaatc ctagaaaaca 60  
gaaagcaaca ggaagatgtc ttattgggaa ctacccccat caacttcacc atgagtcaaa 120  
caaggaagaa aacttcctca gaaggagaaa ctaagcccca gacttcaact gtcaacaaat 180  
ttctcagggg ctccaatgct gaaagcagaa aagaggacaa tgaccttaaa acaagtgatt 240  
cccaacccag cgactggata cagaagacag ccacctcaga gactgctaag cctctcagtt 300  
cagaaatgga atggagatcc agtatggaga aaaatgagca tttcctgcag aagctgggca 360  
aaaaggctgt caacaagtgt ctagatttga ataactgtgg attaacaaca gcggacatga 420  
aagaaatggt tgccttgctg ccttttctcc cagacttgga agaactggat atctcctgga 480  
atggtttgta ggtggaaccc tcctttccat cactcagcaa atgcatctgg tcagcaagtt 540  
aaaaatcttg aggctgggta gctgc 565

<210> 101  
<211> 13  
<212> PRT  
<213> Homo sapiens

<400> 101  
Met Leu Leu His Asp Ile Asp Trp His Leu Met Ser Ile  
1 5 10

<210> 102  
<211> 14  
<212> PRT  
<213> Homo sapiens

<400> 102  
Met Val Leu Pro Gly Ser Leu Ser Met Leu Thr Tyr Gly Met  
1 5 10

<210> 103  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 103  
Met Gln Val Leu Tyr Trp Thr Tyr Leu Leu Leu Ile Leu Phe Pro Thr  
1 5 10 15

Phe Thr Cys Leu Phe Ile Phe  
20

<210> 104  
<211> 26  
<212> PRT  
<213> Homo sapiens

<400> 104  
Met Asn Leu Tyr Met Asn Leu Pro Ser Ala Val Arg Phe Ser Arg Ala  
1 5 10 15

Thr Pro Leu Ile Ser Leu Phe Leu Ala Leu  
20 25

<210> 105  
<211> 49  
<212> PRT  
<213> Homo sapiens

<400> 105  
Met Thr Thr Lys Lys Gln Glu Glu Cys Glu Ser Leu Lys Asp Lys Gln  
1 5 10 15

Lys Ala Thr Lys Gln Ser Ile Ser Phe Cys Ile Tyr Ile Ile Lys Val  
20 25 30

Lys Phe Ser Thr Leu Ala Thr Asp Tyr Lys Ser Val Pro Ser Gly Cys  
35 40 45

Cys

<210> 106  
<211> 61  
<212> PRT  
<213> Homo sapiens

<400> 106  
Met Pro Ser Pro Ser Ala Pro Ser Ile Val Pro Val Leu His Gly Cys  
1 5 10 15

Trp Val His Ile Cys Gln Ala Asp Val Tyr His Thr Leu Leu Lys Gly  
20 25 30

Phe Lys Ser Val Phe Glu Thr Glu Ser His Val Val Ser Pro Arg Leu  
35 40 45

Glu Cys Asn Gln Ser Lys Thr Pro Leu Lys Lys Asn Lys  
50 55 60

<210> 107  
<211> 34  
<212> PRT  
<213> Homo sapiens

<400> 107  
Met Glu Leu Val Met Glu Trp Lys Leu Thr Ile Cys Ser Pro Lys Cys  
1 5 10 15

Ala Thr Thr Thr Gln Gly Leu Gln Thr Asp Ser Tyr Leu Asp Val Val  
20 25 30

Glu Ser

<210> 108  
<211> 77  
<212> PRT  
<213> Homo sapiens

<400> 108  
Met Val Asn Pro Ala Gln Glu Met Thr Leu Ser Arg Asn Thr Cys Lys  
1 5 10 15

Tyr Lys Lys Gln Asp Ile Leu Pro Gln Leu Arg Ser Asp Lys Ile Thr  
20 25 30

Leu Gly Lys Leu Gln Gly Gln Cys Ala Ser Lys Thr Lys Ser Leu Val  
35 40 45

Ser Ser Leu Thr Ser Tyr Leu Pro Ala Phe Ile Ile Ile Ser Leu Ser  
50 55 60

Val Thr Gln Tyr Leu Val Asn Phe Leu Phe Trp His Thr  
65 70 75

<210> 109  
<211> 59

<212> PRT  
<213> Homo sapiens

<400> 109  
Met Gln Cys Lys His Phe Phe Leu Thr Tyr Leu Thr Asp Gln Gly Gly  
1 5 10 15  
Gln Val Ala Leu Leu Ser Ser Phe Pro Pro Cys Gly Asp Ser Gly Ile  
20 25 30  
Gln Ala His Ser Ile Thr Arg Leu Ser His Ile Gly Val Phe His Phe  
35 40 45  
Gly Asp Glu Asp Glu Gly Glu Ser Gly Arg Glu  
50 55

<210> 110  
<211> 91  
<212> PRT  
<213> Homo sapiens

<400> 110  
Met Asp Val Met Gly Lys Leu Lys Gly Ser Cys Asp Glu Thr Gly Ser  
1 5 10 15  
Glu Asn Ser Asp Gly Asp Leu Ser Lys Val Ile Leu Pro Lys His His  
20 25 30  
Leu Ala Ile Met Ile Pro Pro Asn Leu Ser Gln Phe Val Tyr Phe Ile  
35 40 45  
Ser Arg Gly Ser Phe Ser Val Leu Ala Ser Cys Val Phe Val Phe Phe  
50 55 60  
Phe Phe Ser Val Ile Leu Gln Ala Gln Asp Phe Leu Leu Asp Thr Gly  
65 70 75 80  
Arg Ile Ser Leu Leu Lys Glu Ala Gly Gly Thr  
85 90

<210> 111  
<211> 45  
<212> PRT  
<213> Homo sapiens

<400> 111

Met Gly His Val Asp Gln Leu Ser Pro Arg Thr Thr Asn Leu Ala Cys  
1 5 10 15

Ser Asp Asp Leu Cys Ser Arg Gln Gly Phe Arg Leu Asp Cys Cys Ser  
20 25 30

Ser Leu Trp Arg His Asn Pro Asn Cys Glu Leu Leu Asn  
35 40 45

<210> 112  
<211> 64  
<212> PRT  
<213> Homo sapiens

<400> 112  
Met Leu Lys Met Ile Leu Ala Ser Ile Val Ile Asn Ser Val Ile Pro  
1 5 10 15

Glu Phe Phe Val Ser Pro Arg His Thr Asn Phe Cys Pro Leu Leu Leu  
20 25 30

Phe Ser Gln Ser Phe Leu Leu Ala Phe Leu Ser Asn Arg Val Leu Leu  
35 40 45

Thr Pro Tyr Ile Pro Phe Trp Leu Val Arg Val Ser Phe Ser Ser Ser  
50 55 60

<210> 113  
<211> 25  
<212> PRT  
<213> Homo sapiens

<220>  
<221> UNSURE  
<222> (14)

<220>  
<221> UNSURE  
<222> (17)

<400> 113  
Met Leu Leu Phe Thr Lys Leu Leu Ile Ile Met Val Ile Xaa Ile Asn  
1 5 10 15

Xaa Asn Asn Lys Leu Leu Gln Leu Phe  
20 25

<210> 114  
<211> 57  
<212> PRT  
<213> Homo sapiens

<400> 114  
Met Arg Ile Gln Asn Leu Thr Cys Leu Leu Leu Gly Ser Lys Glu Met  
1 5 10 15

Ser Thr Ser Ser Pro Leu Thr Pro Asn Gly Val Glu Gly Phe Gly Pro  
20 25 30

Gln His Cys Val Thr Tyr Ser His His Asp Phe Leu Ala Gln Val Thr  
35 40 45

Pro Ser Val Lys Trp Lys Arg Glu Glu  
50 55

<210> 115  
<211> 147  
<212> PRT  
<213> Homo sapiens

<400> 115  
Met Asn Glu Ser Trp Ala Gly Pro Gly Pro Ala Glu Arg Ala Glu Glu  
1 5 10 15

Ala Val Ser Gly Val Gly Val Glu Ala Lys Thr Gln His Ala Gly Gln  
20 25 30

Gly Ala Gln Pro Gly Gly Met Gly Cys Gly Phe Ser Ser Gly Pro Ile  
35 40 45

Gly Met Ala Leu Gly Leu Gly Leu Val Gly Thr Ala Ala Thr Arg Gly  
50 55 60

Gly Ser Ser Ala Trp Pro Asp Ser Thr Cys Asn Val Gly Arg Gln Trp  
65 70 75 80

Ala Pro Pro Gly Gly Arg Asn Thr Val Arg Ser Met Gln Arg Ala Gly  
85 90 95

Asp His Gly Ala Cys Asp Leu Arg Ala His Pro Gly Gln Thr Trp Val  
100 105 110

Arg Gly Gly Leu Gly Arg Gln Asp Ser Glu Gly Leu Gln Gly Val Phe  
115 120 125

Val Leu Cys Pro Tyr Thr Gly Asp Leu His Gly Arg Val Arg Ser Ile  
130 135 140

Arg Met Leu  
145

<210> 116  
<211> 73  
<212> PRT  
<213> Homo sapiens

<400> 116  
Met Thr Ile Ser Leu Cys Ala Thr Asn Leu Pro Arg Ala Ala Thr Val  
1 5 10 15

Leu Arg Met Lys Pro Lys Leu Pro Gly Ser Gly Pro Val Gln His Glu  
20 25 30

Pro His Leu Pro Ser Gln Pro Gln His Pro Leu Leu Phe Phe Gln Ala  
35 40 45

Gly Gly Lys Leu Glu Ala His Pro His Phe Thr Gln Thr Leu Gly Ile  
50 55 60

Pro Ile Ser Gly Asn Arg Gly Val Phe  
65 70

<210> 117  
<211> 48  
<212> PRT  
<213> Homo sapiens

<220>  
<221> UNSURE  
<222> (46)

<400> 117  
Met Tyr Asn Ile Leu Lys Ala Phe Asp Lys Ile Val His Ile Ile Ser  
1 5 10 15



Asn Thr Ile Leu Tyr Tyr Tyr Gln Gln His Lys Ala Asn Val Ser Lys  
20 25 30

Asn Ser Arg Leu Arg Ile Ser Lys Asn Ser Pro Arg Ala Xaa Phe Arg  
35 40 45

<210> 118  
<211> 38  
<212> PRT  
<213> Homo sapiens

<400> 118  
Met Leu Pro Val Ser Pro Thr Leu Lys Glu Arg Asn Gln Arg Arg Met  
1 5 10 15

Leu Leu Lys Ser Thr His Leu Ala Ser Val Ser Ser Ala Ser Cys Thr  
20 25 30

Gln Thr Lys His Thr Gly  
35

<210> 119  
<211> 55  
<212> PRT  
<213> Homo sapiens

<400> 119  
Met Lys Ile Phe Ile Ile Ile Leu Ser Pro Leu Cys Gly Ile Leu Leu  
1 5 10 15

Asn Val Leu Glu Ser Leu Lys Phe Ile Phe Lys Cys Glu Ser Leu Leu  
20 25 30

Phe Val Trp Gly Glu Glu Cys Gln Val Gly Ile Met Asn Gln Ala Leu  
35 40 45

Pro Tyr Gln Val Leu Leu Tyr  
50 55

<210> 120  
<211> 92  
<212> PRT

<213> Homo sapiens

<400> 120

Glu Ser His Thr Leu Gln Val Ile Leu Gly Cys Glu Met Gln Glu Asp  
1 5 10 15

Asn Ser Thr Glu Gly Tyr Trp Lys Tyr Gly Tyr Asp Gly Gln Asp His  
20 25 30

Leu Glu Phe Cys Pro Asp Thr Leu Asp Trp Arg Ala Ala Glu Pro Arg  
35 40 45

Ala Trp Pro Thr Lys Leu Glu Trp Glu Arg His Lys Ile Arg Ala Arg  
50 55 60

Gln Asn Arg Ala Tyr Leu Glu Arg Asp Cys Pro Ala Gln Leu Gln Gln  
65 70 75 80

Leu Leu Glu Leu Gly Arg Gly Val Leu Asp Gln Gln  
85 90

<210> 121

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (51)..(72)

<400> 121

Met Ile Lys Val Ser Leu Thr Ser Ala Pro Lys Val Ser Ser Leu Glu  
1 5 10 15

Gly Thr Asn Arg Arg Glu His Ser Asp Thr Gln Gly Pro Leu Ser Val  
20 25 30

Pro Trp Lys Pro Ser Asp Leu Cys Arg Pro Ile Ser Val Arg Lys Trp  
35 40 45

Val Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Thr Thr Gln Ser Ser Trp Gln  
65 70 75 80

Ile Leu Asn Lys Gly

<210> 122  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> UNSURE  
 <222> (15)

<400> 122  
 Met Gly Gly Ala Trp Ser Ile Ala Gly Pro Leu Thr Gly Phe Xaa Phe  
           1                  5                  10                  15

Arg Leu Thr Phe  
                   20

<210> 123  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 123  
 Phe Tyr Phe Leu Phe Ser Phe Val Leu Arg Trp Ser Phe Thr Leu Val  
           1                  5                  10                  15

Thr Gln Ala Gly Val Gln Trp Cys Asp Leu Gly Ser Leu Gln Pro Pro  
                   20                  25                  30

Pro Pro Arg Leu Lys Ala Phe Ser Cys Leu Gly Leu Pro Ser Ser Trp  
           35                  40                  45

Asp Tyr Arg His Ala Leu Gln Arg Pro Ala Asn Phe Ala Phe Leu Val  
           50                  55                  60

Glu Ile Gly Phe His His Val Gly Gln Ala Gly Pro Gln Leu Leu Thr  
           65                  70                  75                  80

Ser Gly Asp Pro Ser Ile Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly  
                   85                  90                  95

Val Thr Ala Val Pro Gly Pro  
                   100

<210> 124  
<211> 48  
<212> PRT  
<213> Homo sapiens

<220>  
<221> UNSURE  
<222> (13)..(43)

<400> 124  
Met Val Val Ile Gln Ala Xaa Glu Glu Glu Lys Thr Xaa Xaa Xaa Xaa  
1 5 10 15  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
20 25 30  
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ile Trp Lys Ile Cys  
35 40 45

<210> 125  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 125  
Met Ser Ser Tyr Met Ile Asn Lys Phe Leu Pro Ile Lys Lys Val Lys  
1 5 10 15  
Ile Pro Gly His Lys Val Phe Ser Thr Asp Ile Met Phe Leu Lys Phe  
20 25 30  
Val Ser Ile Ala Thr Leu Leu Arg Arg His Thr Asp Ile Ser Glu Asp  
35 40 45  
Leu Arg Val Leu Gln Asn Thr Glu Lys Ile Ser Arg Arg Lys Gly Lys  
50 55 60  
Gly Glu Thr Lys Lys Leu Lys Glu Gly Leu Thr Tyr Lys Trp Asn Asp  
65 70 75 80  
Leu Lys Arg Asn Gly Glu Pro Gly Glu Thr Gly Val Ser Gln Ser  
85 90 95

<210> 126  
<211> 48  
<212> PRT  
<213> Homo sapiens

<400> 126  
Met Ile Lys Tyr Phe Lys Ser Asn Asn Tyr Lys Phe Asn Tyr Tyr Lys  
1 5 10 15  
Thr Ser Ser Leu Thr Ser Asp Cys Phe Val Leu Ser Phe Lys Ile Ile  
20 25 30  
Met Val Cys Leu Arg Val Cys Leu Leu Asn Thr Phe Ala Tyr Leu Pro  
35 40 45

<210> 127  
<211> 98  
<212> PRT  
<213> Homo sapiens

<400> 127  
Met Glu Phe Arg Ser Val Ala Gln Val Gly Val Gln Trp Arg Asp Leu  
1 5 10 15  
Gly Leu Leu Gln Pro Leu Pro Leu Gln Phe Lys Gln Phe Tyr Cys Leu  
20 25 30  
Ser Leu Ser Ser Ser Trp Asp Tyr Arg His Ser Pro Pro His Pro Ala  
35 40 45  
Asn Phe Leu Tyr Phe Ala Lys Ile Leu Tyr Ile Ala Lys Arg Phe His  
50 55 60  
His Val Gly Gln Ala Gly Leu Ala Leu Leu Thr Ser Gly Asp Pro Pro  
65 70 75 80  
Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Leu Ser His Cys Ala  
85 90 95  
Gln Pro

<210> 128

<211> 50  
<212> PRT  
<213> Homo sapiens

<400> 128  
Met Gly Lys Arg Arg Asp Ser Trp Thr Asn Arg Glu Arg Gln Leu Glu  
1 5 10 15  
Asn Lys Ser Met Gln Lys Ile Ile Tyr Asn Lys Ile Met His Leu Thr  
20 25 30  
Leu Val Thr Lys Gln Ile Ser Tyr Pro His Phe Ser Leu Ser Val Phe  
35 40 45  
Val Ser  
50

<210> 129  
<211> 16  
<212> PRT  
<213> Homo sapiens

<400> 129  
Met Leu Leu Phe Val Leu Ser Leu Val Phe Gln Tyr Gln Phe Asn Thr  
1 5 10 15

<210> 130  
<211> 54  
<212> PRT  
<213> Homo sapiens

<400> 130  
Met Ala Leu His Cys Phe Thr Ser Gly Leu Trp Ile Ala Ser Val Arg  
1 5 10 15

Lys Lys Val Lys Met Lys Glu Lys Val Glu Gln Ile Leu Ala Thr Glu  
20 25 30

Pro Pro Glu Asp Ser Cys Pro Phe Ser Asn Lys Leu Ser Gly Lys Cys  
35 40 45

Cys Cys His Gly Ser Thr  
50

<210> 131

<211> 41  
<212> PRT  
<213> Homo sapiens

<400> 131  
Met Cys Ala His Lys Gly Lys Ala Met Arg Glu Arg Thr Gln Pro Glu  
1 5 10 15  
Gly Gly His Leu Ala Ser Gln Gly Glu Ala Leu Arg Glu Thr Lys Pro  
20 25 30  
Ala Arg Leu Gly Thr Val Ala His Gly  
35 40

<210> 132  
<211> 35  
<212> PRT  
<213> Homo sapiens

<400> 132  
Met Ala Leu Ile Leu Leu Glu Ala Leu Cys Phe Gly Leu Ile Ile Cys  
1 5 10 15  
Met Asn Arg Glu Ser Ile Ser Thr Leu Ile Phe Tyr Lys His Trp Met  
20 25 30  
Ser Ile Leu  
35

<210> 133  
<211> 58  
<212> PRT  
<213> Homo sapiens

<400> 133  
Met Phe Asn Ala Tyr Leu Leu Tyr Asn Asn Gln Val Ile Thr Val Gln  
1 5 10 15  
Ile Lys Gly Pro Lys Cys Phe Arg Tyr Asp Ile Ile Leu Ser Ile Val  
20 25 30  
Asn Trp Thr Lys Glu Thr Leu Tyr Val Gln Gly Ser Val Glu Gln Pro  
35 40 45  
Trp Cys Ser Trp Asp Met Leu Pro Arg Cys  
50 55

<210> 134  
<211> 27  
<212> PRT  
<213> Homo sapiens

<400> 134  
Met Met Lys Leu Cys Phe Thr Ala Ser Leu Leu His Gly Ala Leu Leu  
1 5 10 15

Trp His Leu Ala Thr Thr Asn Ser Leu Ile Pro  
20 25

<210> 135  
<211> 46  
<212> PRT  
<213> Homo sapiens

<400> 135  
Met Glu Leu Pro Ser Met Cys Pro Ile Leu Phe Phe Val Thr Val Phe  
1 5 10 15

Phe Met Tyr His Thr Pro Ser Cys Pro Ser Ser Val Pro Gln Thr His  
20 25 30

Gln Ser His Phe Leu Leu Thr Ala Leu Gly Leu Ala Leu Thr  
35 40 45

<210> 136  
<211> 77  
<212> PRT  
<213> Homo sapiens

<400> 136  
Met Thr Cys Pro Gly Gly Glu Thr Gly Trp Gly Cys Leu Arg Met Asp  
1 5 10 15

Pro Arg Glu Trp Val Ser Ser Pro Asp Gln Gln Asn Leu Arg Met Cys  
20 25 30

Ala Trp Ile Gln Pro His Leu Lys Leu Gly Leu His Phe Val Ser Gly  
35 40 45

Ala Pro Asn Ala Leu Cys Leu Gly Cys Leu Tyr Ser Trp His Thr Gly  
50 55 60



Glu Ala Leu Ser Pro Ala Gly Pro Gly Cys Cys Cys Ser  
65 70 75

<210> 137  
<211> 37  
<212> PRT  
<213> Homo sapiens

<400> 137  
Met Glu Gln Glu Ser Val Pro Ser Met Ser Leu Phe Thr Arg Ile Leu  
1 5 10 15

Ser Gln Pro Ser Leu Phe Pro Trp Gln Ala Leu His Arg Glu Thr Gly  
20 25 30

Lys Arg Ser Thr Val  
35

<210> 138  
<211> 59  
<212> PRT  
<213> Homo sapiens

<400> 138  
Met Leu Leu Pro Leu Pro Ala Ile Ser Phe Pro Cys Asn Ser Leu Phe  
1 5 10 15

His Pro Ala Asp Ala Ser Ser Leu Ser Trp Leu Ser Ser Lys Ser Tyr  
20 25 30

Pro Leu Gly Lys Leu Thr Arg Met Leu Gln Ser Asp Gly Val Ser Pro  
35 40 45

Pro Gly Pro Pro Gln Thr Leu Tyr Phe Leu Leu  
50 55

<210> 139  
<211> 50  
<212> PRT  
<213> Homo sapiens

<400> 139  
Met Asp Asn Lys Cys Leu Thr Leu Thr Asn Tyr Leu Ala Ile Met Gly  
1 5 10 15

Phe Phe Asp Gln Lys Ser Ser Lys Arg Val Trp Trp Gly Leu Arg Asp  
20 25 30

Pro Ser Ser Leu Pro Lys Asn Met Lys Ser Phe His Phe Gln Tyr Val  
35 40 45

Lys Thr  
50

<210> 140  
<211> 72  
<212> PRT  
<213> Homo sapiens

<400> 140  
Met Arg Val Val Phe Lys Ile Thr Phe Cys Arg Val Val Cys Ser Thr  
1 5 10 15

Leu Met Leu Lys Gly Ser His Leu Pro Gln Pro Ile Lys Leu Cys Cys  
20 25 30

Leu Cys Ser Ala Phe Tyr His Lys Asn Met Thr Phe Lys His Lys Asn  
35 40 45

Thr Leu Tyr Ser Thr Thr Lys Asn Arg Asn Asp Ile Tyr Leu His Cys  
50 55 60

Phe Pro Ile Ser Leu His Leu Tyr  
65 70

<210> 141  
<211> 863  
<212> PRT  
<213> Homo sapiens

<400> 141  
Met Pro Glu Gln His Lys Asp Pro Arg Val Gln Glu Asn Pro Asp Asp  
1 5 10 15

Gln Arg Thr Val Pro Glu Val Thr Gly Asp Ala Arg Ser Ala Phe Trp  
20 25 30

Pro Leu Arg Asp Asn Gly Gly Pro Ser Pro Phe Val Pro Arg Pro Gly  
35 40 45

Pro	Leu	Gln	Thr	Asp	Leu	His	Ala	Gln	Ser	Ser	Glu	Ile	Arg	Tyr	Asn	50	55	60	
His	Thr	Ser	Gln	Thr	Ser	Trp	Thr	Ser	Ser	Ser	Thr	Lys	Arg	Asn	Ala	65	70	75	80
Ile	Ser	Ser	Ser	Tyr	Ser	Ser	Thr	Gly	Gly	Leu	Pro	Gly	Leu	Lys	Gln	85	90	95	
Arg	Arg	Gly	Pro	Ala	Ser	Ser	Arg	Cys	Gln	Leu	Thr	Leu	Ser	Tyr	Ser	100	105	110	
Lys	Thr	Val	Ser	Glu	Asp	Arg	Pro	Gln	Ala	Val	Ser	Ser	Gly	His	Thr	115	120	125	
Arg	Cys	Glu	Lys	Gly	Ala	Asp	Thr	Ser	Pro	Gly	Gln	Thr	Ile	Ala	Pro	130	135	140	
Thr	Gly	Gly	Ser	Pro	Arg	Ser	His	Asp	Ser	Arg	Pro	Arg	Arg	Arg	Lys	145	150	155	160
Ile	Pro	Leu	Leu	Pro	Arg	Arg	Arg	Gly	Glu	Pro	Leu	Met	Leu	Pro	Pro	165	170	175	
Pro	Leu	Glu	Leu	Gly	Tyr	Arg	Val	Thr	Ala	Glu	Asp	Leu	His	Leu	Glu	180	185	190	
Lys	Glu	Thr	Ala	Phe	Gln	Arg	Ile	Asn	Ser	Ala	Leu	His	Val	Glu	Asp	195	200	205	
Lys	Ala	Ile	Pro	Asp	Cys	Arg	Pro	Ser	Arg	Pro	Ser	His	Thr	Leu	Ser	210	215	220	
Ser	Leu	Ala	Thr	Gly	Ala	Ser	Gly	Gly	Pro	Pro	Val	Ser	Lys	Ala	Pro	225	230	235	240
Thr	Met	Asp	Ala	Gln	Gln	Asp	Arg	Pro	Lys	Ser	Gln	Asp	Cys	Leu	Gly	245	250	255	
Leu	Val	Ala	Pro	Leu	Ala	Ser	Ala	Ala	Glu	Val	Pro	Ala	Thr	Ala	Pro	260	265	270	
Val	Ser	Gly	Lys	Lys	His	Arg	Pro	Pro	Gly	Pro	Leu	Phe	Ser	Ser	Ser	275	280	285	
Asp	Pro	Leu	Pro	Ala	Asn	Ser	Ser	His	Ser	Arg	Asp	Ser	Ala	Gln	Val	290	295	300	

Thr	Ser	Met	Ile	Pro	Ala	Pro	Phe	Thr	Ala	Ala	Ser	Arg	Asp	Ala	Gly	305	310	315	320
Met	Arg	Arg	Thr	Arg	Ser	Ala	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Pro	Pro	325	330	335	
Pro	Ser	Thr	Leu	Asn	Pro	Thr	Ser	Gly	Ser	Leu	Leu	Asn	Ala	Val	Asp	340	345	350	
Gly	Gly	Pro	Ser	His	Phe	Leu	Ala	Ser	Ala	Thr	Ala	Ala	Ala	Arg	Ala	355	360	365	
Gln	Arg	Ser	Glu	Val	Arg	Tyr	Asn	Gln	Arg	Ser	Gln	Thr	Ser	Arg	Thr	370	375	380	
Arg	Ser	Cys	Leu	Lys	Arg	Asn	Ala	Ser	Ser	Ser	Ser	His	Ser	Ser	Thr	385	390	395	400
Glu	Gly	Leu	Gln	Glu	Val	Lys	Arg	Arg	Arg	Gly	Pro	Ala	Ser	Ser	His	405	410	415	
Cys	Gln	Leu	Ala	His	Ser	Ser	Ser	Asn	Thr	Val	Ser	Glu	Asp	Gly	Pro	420	425	430	
Gln	Ala	Val	Ser	Ser	Gly	His	Arg	Cys	Glu	Asn	Lys	Ala	Gly	Thr	Ala	435	440	445	
Pro	Gly	Gln	Thr	Leu	Ala	Pro	Arg	Gly	Gly	Ser	Pro	Arg	Ser	Gln	Ala	450	455	460	
Ser	Arg	Pro	His	Ile	Asn	Thr	Ala	Leu	His	Val	Glu	Asp	Lys	Ala	Ile	465	470	475	480
Ser	Asp	Cys	Arg	Pro	Ser	Arg	Pro	Ser	His	Thr	Leu	Ser	Ser	Leu	Ala	485	490	495	
Thr	Gly	Ala	Ser	Gly	Gly	Pro	Pro	Val	Ser	Lys	Ala	Pro	Thr	Met	Asp	500	505	510	
Ala	Gln	Gln	Asp	Arg	Pro	Lys	Ser	Gln	Asp	Ser	Leu	Gly	Leu	Leu	Ala	515	520	525	
Pro	Leu	Ala	Ser	Ala	Ala	Glu	Val	Pro	Ser	Thr	Ala	Pro	Val	Ser	Gly	530	535	540	
Lys	Lys	His	Arg	Pro	Pro	Gly	Pro	Leu	Phe	Ser	Ser	Ser	Asp	Pro	Leu	545	550	555	560

Pro Ala Thr Ser Tyr His Ser Arg Asp Thr Ala Gln Val Thr Ser Leu  
565 570 575

Ile Pro Ala Thr Phe Thr Ala Ala Ser Arg Asp Ala Gly Met Arg Arg  
580 585 590

Thr Arg Ser Ala Pro Ala Ala Ala Thr Ala Ala Pro Pro Pro Ser Thr  
595 600 605

Leu Asn Asn Thr Ser Gly Ser Leu Leu Asn Ala Val Asp Gly Gly Pro  
610 615 620

Ser His Phe Leu Ala Ser Ala Thr Ala Ala Ala Arg Ala Gln Arg Ser  
625 630 635 640

Glu Val Arg Tyr Asn Gln Arg Ser Gln Thr Ser Arg Thr Arg Ser Cys  
645 650 655

Leu Lys Arg Asn Ala Ser Ser Ser Ser Ser Ser His Ser Ser Thr Glu  
660 665 670

Gly Leu Gln Glu Val Lys Arg Arg Arg Gly Pro Ala Ser Ser His Cys  
675 680 685

Gln Leu Ala His Ser Ser Ser Asn Thr Val Ser Glu Asp Gly Pro Gln  
690 695 700

Ala Val Ser Ser Gly His Arg Cys Glu Asn Lys Ala Gly Thr Ala Pro  
705 710 715 720

Gly Gln Thr Leu Ala Pro Arg Gly Gly Ser Pro Arg Ser Gln Ala Ser  
725 730 735

Arg Pro His Ile Asn Ser Ala Leu His Val Glu Asp Lys Ala Ile Ser  
740 745 750

Asp Cys Arg Pro Ser Arg Pro Ser His Thr Leu Ser Ser Leu Ala Thr  
755 760 765

Gly Ala Ser Gly Gly Pro Pro Val Ser Lys Ala Pro Thr Met Asp Ala  
770 775 780

Gln Gln Asp Arg Pro Lys Ser Gln Asp Cys Leu Gly Leu Leu Ala Pro  
785 790 795 800

Leu Ala Ser Ala Ala Glu Val Phe Ser Thr Ala Pro Val Ser Gly Lys  
805 810 815

Lys His Arg Pro Pro Gly Pro Leu Phe Ser Ser Ser Asp Pro Leu Pro  
820 825 830

Ala Thr Ser Ser His Ser Gly Asp Ser Ala Gln Asp Thr Ser Leu Ile  
835 840 845

Pro Ala Pro Phe Thr Pro Ala Ser Arg Asp Ala Gly Ile Arg Arg  
850 855 860

<210> 142  
<211> 29  
<212> PRT  
<213> Homo sapiens

<400> 142  
Met Ser Tyr Leu Ser Leu Leu Leu Ile Ser Ile Phe Met Val Cys Tyr  
1 5 10 15

Phe Lys Arg Asn Ser Phe Pro Ile Thr Ile Leu Phe Ser  
20 25

<210> 143  
<211> 32  
<212> PRT  
<213> Homo sapiens

<400> 143  
Met Pro Trp Pro Met Pro Ile Cys Thr Gly Thr Gln Gly Val Leu Thr  
1 5 10 15

His Arg Gln Gly Pro Pro Pro Ala Ala Val Gly Val Ser Pro His Thr  
20 25 30

<210> 144  
<211> 29  
<212> PRT  
<213> Homo sapiens

<400> 144  
Met Asn Ala Phe Leu Leu Glu Arg Met Thr Glu Ser Gln Ala Met Asp  
1 5 10 15

Ile Gln Thr Cys Ile Phe Gln Thr Leu Leu Glu Asn Lys  
 20 25

<210> 145  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<400> 145  
 Met Ile Val Thr Asn Thr Ile Leu Lys Phe Ile His Lys Lys Pro Thr  
 1 5 10 15

Thr Ile Thr Pro Thr Lys Gln His Gly Ile Ile Phe Ser Val Pro Glu  
 20 25 30

Ala Lys Val Arg Ala Leu Leu Cys Phe Leu Leu Arg Met Pro Ser Pro  
 35 40 45

<210> 146  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 146  
 Gly Gln Ala Leu Trp Leu Met Pro Val Ile Pro Val Val Ala Lys Ala  
 1 5 10 15

Glu Gly Lys Asp His Leu Arg Pro Gly Val Ala Asn Gln Pro Gly Gln  
 20 25 30

His Ser Lys Thr Leu Phe Leu Gln Lys Lys Asn Phe Ala Lys Leu Ala  
 35 40 45

Glu His Gly Gly Ala Cys Leu  
 50 55

<210> 147  
 <211> 55  
 <212> PRT  
 <213> Homo sapiens

<400> 147

Met Ser Arg Phe Arg Ile Gln Thr Ser Glu Thr Ala Pro Ile Pro Leu  
1 5 10 15

Val Ser His Pro His Thr Pro Leu Ser Asn Asn Asn Asn Leu His Leu  
20 25 30

Gly Asn Val Cys Tyr Val Pro Gly His Thr Gly Ile Ile Ser Cys Thr  
35 40 45

Pro His Arg His Leu Ile Lys  
50 55

<210> 148

<211> 50

<212> PRT

<213> Homo sapiens

<400> 148

Met Gln Gly Leu His Leu Pro Gln Gly Leu Gly Thr Cys Tyr Ser Ile  
1 5 10 15

Cys Leu Gln Cys Leu Ser Pro His Gly Tyr Phe Phe Val Ala Val Gly  
20 25 30

Leu Ser Ser Asn Val Met Ser Pro Thr Ser Leu Pro Lys Ala Val Leu  
35 40 45

Pro Thr  
50

<210> 149

<211> 31

<212> PRT

<213> Homo sapiens

<400> 149

Met Leu Pro Val Asn Ile Ser His Pro Leu Ser Arg Gly Asn Pro Leu  
1 5 10 15

Leu Ser Ser Lys Phe Ser Lys Phe Phe Leu Ile Glu Phe Ser Gln  
20 25 30

<210> 150

<211> 36

<212> PRT



<213> Homo sapiens

<400> 150

Met Asp Tyr Ser Leu Ser Phe Asp Asn Tyr Thr Trp Gly Phe Gly Glu  
1 5 10 15

Pro Arg Ile Lys Val Gln Ser Phe Asn Asp Leu Leu Ala Pro Gly Leu  
20 25 30

Thr Gln Glu His  
35

<210> 151

<211> 85

<212> PRT

<213> Homo sapiens

<400> 151

Met Ile Arg Ser Lys Gly Thr Asn Phe Gln Ile Leu Ala Glu Leu Phe  
1 5 10 15

Lys Gly Met Asp Phe Leu Trp Leu Gln Leu Ala Arg Leu Phe Gln Lys  
20 25 30

Ala Cys Pro Trp Leu Thr Ala Cys Leu Ala Gln Phe Leu Arg Ser Pro  
35 40 45

Leu Val Met Glu Asn Arg Ala Asp Arg Ile Gln Met Ala Arg Phe His  
50 55 60

Arg Gly Gln Gly Gly Pro Gln Ser Ala Asn Gln Gly Arg Leu Arg Pro  
65 70 75 80

Glu Lys Gly Ile Ser  
85

<210> 152

<211> 73

<212> PRT

<213> Homo sapiens

<400> 152

Met Asp Arg Phe Leu Asn Ser Lys Ala Arg Arg Leu Gly Ser Cys Ser  
1 5 10 15

His Pro Ala Phe Tyr Leu Leu Cys Val Pro Asp Glu Asp Thr Ser Cys

20

25

30

Ser Thr Met Tyr Leu Pro Leu Lys Arg Arg Ala Asp Pro Asp Gln Leu  
 35 40 45

Phe Ser Asp Leu Leu Gly Gly Thr Gln Arg Leu Trp Arg Leu Trp Pro  
 50 55 60

Ser Leu Ala Ser Val Glu Ser Gly Leu  
 65 70

&lt;210&gt; 153

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 153

Met Gln Cys Thr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
 20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Ile Lys Phe Gly  
 35 40 45

Met Lys Gln Glu Leu Ser Trp Thr Ile Tyr Asn Leu Leu Arg Tyr  
 50 55 60

&lt;210&gt; 154

&lt;211&gt; 46

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 154

Met Arg Cys Leu Leu Ala Asp Ser Ser Leu Gln Met Gln Pro Gly Asp  
 1 5 10 15

Val Thr Leu Arg Leu Glu Ser Cys Gly Ser Asn Pro Arg Gln Arg Gln  
 20 25 30

Leu His Gln Val Leu Val Trp Val Arg Asn Arg Gly Lys Gly  
 35 40 45

&lt;210&gt; 155

<211> 72  
<212> PRT  
<213> Homo sapiens

<220>  
<221> UNSURE  
<222> (22)

<400> 155  
Met Pro Pro Arg Gly Trp Ala Cys Pro Ser Ser Gly Pro Pro Ala Pro  
1 5 10 15

Gly Pro Gly Arg Trp Xaa Arg Ala Ala Ala Gly Gly Leu Arg Arg Thr  
20 25 30

Arg Cys Asp Trp Leu Pro Leu Arg Arg Thr Gln Met Ser Leu Arg Arg  
35 40 45

Ile Asp Leu Leu Pro Ser Pro Ala Gly Gln Ala Gln Ala Gly Ser Glu  
50 55 60

Asn Tyr Leu Pro Leu Phe Ile Ser  
65 70

<210> 156  
<211> 20  
<212> PRT  
<213> Homo sapiens

<220>  
<221> UNSURE  
<222> (10)

<220>  
<221> UNSURE  
<222> (13)..(14)

<220>  
<221> UNSURE  
<222> (16)

<220>  
<221> UNSURE  
<222> (20)

<400> 156  
Met Val Phe Ile Phe Ser Thr Thr Ile Xaa Phe Phe Xaa Xaa Glu Xaa

1

5

10

15

Glu Ser Cys Xaa

20

&lt;210&gt; 157

&lt;211&gt; 66

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 157

Met Ser Leu Thr Tyr Ser Trp Lys Lys Ser Lys Val Thr Lys Phe Asn

1

5

10

15

Leu Ser Thr Leu Arg Met Thr Val Thr Asn Lys Asn Arg Thr Val Gln

20

25

30

Lys Cys Ala Lys Asp Thr Arg Lys Leu Asn Asn Ile Asn Ser Met Ile

35

40

45

Ile Val Ile Leu Tyr Thr Met Glu Ser Lys Gln Ile Phe Phe His Gly

50

55

60

Asn Ser

65

&lt;210&gt; 158

&lt;211&gt; 41

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 158

Met Met Thr Gly Glu Ala Arg Glu Ser Gln Ile Ala Leu Tyr Lys Gln

1

5

10

15

Arg Phe Arg Glu Phe Arg Glu Glu Gly Arg Thr Ile Tyr Lys Gly Arg

20

25

30

Trp Lys Arg Ser His Leu Ala Glu Gly

35

40

&lt;210&gt; 159

&lt;211&gt; 31

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<220>

<221> UNSURE

<222> (7)

<400> 159

Met Leu Glu Leu Gly Leu Xaa Pro Lys Leu Thr Ser Glu Tyr Arg Phe  
1 5 10 15

Pro Pro Asn Cys Met Ile Leu His Ile Trp Ser Gln Leu Glu Val  
20 25 30

<210> 160

<211> 75

<212> PRT

<213> Homo sapiens

<400> 160

Met Tyr Ile Tyr Ile Cys His His Phe Lys Asn Gln Ala Phe Lys Val  
1 5 10 15

Lys Leu Ser Phe Pro His Ile Phe Phe His Ser Ile Phe Tyr Gln Tyr  
20 25 30

Arg His Ser Leu Leu Leu Leu Ser Phe Gln Phe Pro Ile Ile Ser Ser  
35 40 45

His Pro Ile Phe Cys Ala Ser Ser Val Phe Lys Thr His Ser Pro Ser  
50 55 60

Ala Ala Met Ala Pro Thr Ile Ile Phe Ile Thr  
65 70 75

<210> 161

<211> 36

<212> PRT

<213> Homo sapiens

<220>

<221> UNSURE

<222> (7)..(13)

<400> 161

Met Lys Arg Gly Asn Leu Xaa Xaa Xaa Xaa Xaa Xaa Gly Thr Pro  
1 5 10 15

Cys Lys Asp Trp Ser His Thr Ala Met Ser Gln Glu Pro Pro Val Leu  
 20 25 30

Val Arg Val Leu  
 35

<210> 162  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> UNSURE  
 <222> (9)

<220>  
 <221> UNSURE  
 <222> (20)

<400> 162  
 Met Trp Ala Ala Trp Arg Arg Arg Xaa Asn Gly Phe Phe Pro Arg Ile  
 1 5 10 15

Pro Gly Lys Xaa Arg Gly Pro Asn  
 20

<210> 163  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 163  
 Met Cys His Ser Leu Tyr Arg Phe Leu Asn Cys His Ser Arg Tyr Tyr  
 1 5 10 15

Ile Val Tyr Thr Tyr Leu Thr Ile Phe Tyr Trp Cys His His Phe  
 20 25 30

<210> 164  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> UNSURE

<222> (2)..(22)

<220>

<221> UNSURE

<222> (39)..(67)

<220>

<221> UNSURE

<222> (79)..(113)

<400> 164

Met Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Ala Gly Lys Arg Glu Asn Gln Lys Asp Ser  
20 25 30

Ser Val Arg Arg Thr Trp Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
50 55 60

Xaa Xaa Xaa Arg Phe Ser Pro Arg Ala Tyr Arg Lys Lys Val Xaa Xaa  
65 70 75 80

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
85 90 95

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
100 105 110

Xaa Arg His Asn Arg Lys Leu Ile His Leu Ser Ser Lys Phe Leu Ile  
115 120 125

Ile Asn Val Ile Ala Ser  
130

<210> 165

<211> 51

<212> PRT

<213> Homo sapiens

<400> 165

Met Ser Lys Val Asp Leu Phe Ile Thr Asp Ser Phe Lys Lys Phe Asn  
1 5 10 15

Gln Tyr Leu Leu Ala Thr Tyr Ser Thr Ser Gly Thr Gln Gly Ile Trp  
20 25 30

Ser Thr Thr Met Lys Lys Arg Asp Trp Thr Leu Lys Glu His Arg Ser  
35 40 45

Cys His Phe  
50

<210> 166  
<211> 60  
<212> PRT  
<213> Homo sapiens

<400> 166  
Met Ser Asp Ser Arg Leu Cys Ser Cys Phe Leu His Thr Leu Ile Phe  
1 5 10 15

Leu Asn Ile Ser Lys Ile Gln Ser Gly Ser Lys Ile Thr Cys Lys Asn  
20 25 30

Ile Leu Ala Gln Glu Phe Asp Arg Leu Lys Ile Asn Tyr Leu Lys Tyr  
35 40 45

Ile Lys Gln Glu Val Tyr Leu Leu Tyr Ser Met Tyr  
50 55 60

<210> 167  
<211> 15  
<212> PRT  
<213> Homo sapiens

<400> 167  
Met Val Phe Gln Lys Thr Ser Leu Tyr Ser Asn Asn Ile Leu Leu  
1 5 10 15

<210> 168  
<211> 106  
<212> PRT  
<213> Homo sapiens

<400> 168  
Cys Pro Ala Ala Tyr Thr Val Phe Leu Thr Arg Ile Ile Val Lys Tyr  
1 5 10 15



Tyr Leu Asn Arg Gly Leu Phe Ser Glu Thr Pro Ser Asn Leu Lys Val  
                   20                  25                  30  
 Glu Glu Lys Gly Trp Val Trp Trp Leu Met Pro Val Thr Pro Ala Leu  
                   35                  40                  45  
 Trp Glu Ala Glu Ala Gly Gly Ser Leu Glu Leu Ser Leu Arg Pro Gly  
                   50                  55                  60  
 Trp Ala Thr Pro Ser Leu Pro Lys Asn Thr Lys Met Ser Gln Ala Trp  
                   65                  70                  75                  80  
 Trp Cys Thr Pro Val Val Pro Ala Ala Leu Gly Ala Glu Val Gly Gly  
                   85                  90                  95  
 Arg Leu Gly Pro Arg Arg Trp Arg Leu Gln  
                   100                  105

<210> 169  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<400> 169  
 Met Gly Pro Asp Arg Leu Lys Gln Lys Ser Asn Thr Ala Val Val Ser  
       1                  5                  10                  15

Arg Trp Ile

<210> 170  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> UNSURE  
 <222> (3) .. (4)

<220>  
 <221> UNSURE  
 <222> (13)

<220>  
 <221> UNSURE  
 <222> (16)

<400> 170

Met Asp Xaa Xaa Lys Trp Arg Met Arg Arg Gln Pro Xaa Ile Asn Xaa  
1 5 10 15

Met Tyr Gln Thr Val Thr Ile Cys Glu Glu Tyr Cys Val Tyr Thr Asn  
20 25 30

Arg Lys Gln Leu Lys Ala Phe Asn Met Cys Gly Trp Gly Glu Arg  
35 40 45

<210> 171

<211> 197

<212> PRT

<213> Homo sapiens

<400> 171

Gln Glu Ala Gln Ile Met Lys Lys Leu Arg His Asp Lys Leu Val Pro  
1 5 10 15

Leu Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr Ile Val Thr Glu Phe  
20 25 30

Met Ser Lys Gly Ala Tyr Ser Leu Ser Ile Arg Asp Trp Asp Glu Ile  
35 40 45

Arg Gly Asp Asn Val Lys His Tyr Lys Ile Arg Lys Leu Asp Asn Gly  
50 55 60

Gly Tyr Tyr Ile Thr Thr Arg Ala Gln Phe Asp Thr Leu Gln Lys Leu  
65 70 75 80

Val Lys His Tyr Thr Glu His Ala Asp Gly Leu Cys His Lys Leu Thr  
85 90 95

Thr Val Cys Pro Thr Val Lys Pro Gln Thr Gln Gly Leu Ala Lys Asp  
100 105 110

Ala Trp Glu Ile Pro Arg Glu Ser Leu Arg Leu Glu Val Lys Leu Gly  
115 120 125

Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr Trp Asn Gly Thr Thr  
130 135 140

Lys Val Ala Ile Lys Thr Leu Lys Pro Gly Thr Met Met Pro Glu Ala  
145 150 155 160

Phe Leu Gln Glu Ala Gln Ile Met Lys Lys Leu Arg His Asp Lys Leu  
165 170 175

Val Pro Leu Tyr Ala Val Val Ser Glu Glu Pro Ile Tyr Ile Val Thr  
180 185 190

Glu Phe Met Ser Lys  
195

<210> 172  
<211> 59  
<212> PRT  
<213> Homo sapiens

<220>  
<221> UNSURE  
<222> (28) .. (49)

<400> 172  
Met Cys Ile Met His Ile Asn Thr Phe Asn Leu Cys Asn His Leu Met  
1 5 10 15

Arg Trp Leu Leu Leu Lys Ser Pro Leu Cys Thr Xaa Xaa Xaa Xaa Xaa  
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa  
35 40 45

Xaa Gln Lys Pro Lys Pro Thr Val His Gly Ile  
50 55

<210> 173  
<211> 56  
<212> PRT  
<213> Homo sapiens

<220>  
<221> UNSURE  
<222> (14) .. (21)

<400> 173  
Met Lys Pro Ile Arg Gln Leu Val Pro Phe Thr Leu Glu Xaa Xaa Xaa  
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Leu Tyr Leu Glu His Leu Thr Cys Arg Lys Arg  
20 25 30

Arg Gly Lys Thr Phe Leu Gly Lys Arg Lys Ala Val Ala Val Pro Lys  
 35 40 45

Ser Lys His Phe Trp Gln Gly Phe  
 50 55

<210> 174  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 174  
 Met Leu Lys His Leu Gln Val Leu Asp Leu His Gln Cys Ser Leu Thr  
 1 5 10 15

Ala Asp Asp Val Met Ser Leu Thr Gln Val Ile Pro Leu Leu Ser Asn  
 20 25 30

Leu Gln Glu Leu Asp Leu Ser Ala Asn Lys Lys Met Gly Ser Ser Ser  
 35 40 45

Glu Asn Leu Leu Ser Arg Leu Arg Phe Leu Pro Ala Leu Lys Ser Leu  
 50 55 60

Val Ile Asn Asn Cys Ala Leu Glu Ser Glu Thr Phe Thr Ala Leu Ala  
 65 70 75 80

Glu Ala Ser Val His Leu Ser Ala Leu Glu Val Phe Asn Leu Ser Trp  
 85 90 95

Glu Gln Val Cys Trp Trp Ala Thr  
 100

<210> 175  
 <211> 490  
 <212> PRT  
 <213> Homo sapiens

<400> 175  
 Met Ser Gln Thr Arg Lys Lys Thr Ser Ser Glu Gly Glu Thr Lys Pro  
 1 5 10 15

Gln Thr Ser Thr Val Asn Lys Phe Leu Arg Gly Ser Asn Ala Glu Ser  
 20 25 30

Arg	Lys	Glu	Asp	Asn	Asp	Leu	Lys	Thr	Ser	Asp	Ser	Gln	Pro	Ser	Asp	35	40	45
Trp	Ile	Gln	Lys	Thr	Ala	Thr	Ser	Glu	Thr	Ala	Lys	Pro	Leu	Ser	Ser	50	55	60
Glu	Met	Glu	Trp	Arg	Ser	Ser	Met	Glu	Lys	Asn	Glu	His	Phe	Leu	Gln	65	70	75
Lys	Leu	Gly	Lys	Lys	Ala	Val	Asn	Lys	Cys	Leu	Asp	Leu	Asn	Asn	Cys	85	90	95
Gly	Leu	Thr	Thr	Ala	Asp	Met	Lys	Glu	Met	Gly	Glu	Ala	Phe	Glu	Met	100	105	110
Ile	Pro	Glu	Leu	Glu	Glu	Leu	Asn	Leu	Ser	Trp	Asn	Ser	Lys	Val	Gly	115	120	125
Gly	Asn	Leu	Pro	Leu	Ile	Leu	Gln	Lys	Phe	Gln	Lys	Gly	Ser	Lys	Ile	130	135	140
Gln	Met	Ile	Glu	Leu	Val	Ala	Cys	Ser	Leu	Thr	Ser	Glu	Asp	Gly	Thr	145	150	155
Phe	Leu	Gly	Gln	Leu	Leu	Pro	Met	Leu	Gln	Ser	Leu	Glu	Val	Leu	Asp	165	170	175
Leu	Ser	Ile	Asn	Arg	Asp	Ile	Val	Gly	Ser	Leu	Asn	Ser	Ile	Ala	Gln	180	185	190
Gly	Leu	Lys	Ser	Thr	Ser	Asn	Leu	Lys	Val	Leu	Lys	Leu	His	Ser	Cys	195	200	205
Gly	Leu	Ser	Gln	Lys	Ser	Val	Lys	Ile	Leu	Asp	Ala	Ala	Phe	Arg	Tyr	210	215	220
Leu	Gly	Glu	Leu	Arg	Lys	Leu	Asp	Leu	Ser	Cys	Asn	Lys	Asp	Leu	Gly	225	230	235
Gly	Gly	Phe	Glu	Asp	Ser	Pro	Ala	Gln	Leu	Val	Met	Leu	Lys	His	Leu	245	250	255
Gln	Val	Leu	Asp	Leu	His	Gln	Cys	Ser	Leu	Thr	Ala	Asp	Asp	Val	Met	260	265	270
Ser	Leu	Thr	Gln	Val	Ile	Pro	Leu	Leu	Ser	Asn	Leu	Gln	Glu	Leu	Asp	275	280	285

Leu Ser Ala Asn Lys Lys Met Gly Ser Ser Ser Glu Asn Leu Leu Ser  
 290 295 300

Arg Leu Arg Phe Leu Pro Ala Leu Lys Ser Leu Val Ile Asn Asn Cys  
 305 310 315 320

Ala Leu Glu Ser Glu Thr Phe Thr Ala Leu Ala Glu Ala Ser Val His  
 325 330 335

Leu Ser Ala Leu Glu Val Phe Asn Leu Ser Trp Asn Lys Cys Val Gly  
 340 345 350

Gly Asn Leu Lys Leu Leu Leu Glu Thr Leu Lys Leu Ser Met Ser Leu  
 355 360 365

Gln Val Leu Arg Leu Ser Ser Cys Ser Leu Val Thr Glu Asp Val Ala  
 370 375 380

Leu Leu Ala Ser Val Ile Gln Thr Gly His Leu Ala Lys Leu Gln Lys  
 385 390 395 400

Leu Asp Leu Ser Tyr Asn Asp Ser Ile Cys Asp Ala Gly Trp Thr Met  
 405 410 415

Phe Cys Gln Asn Val Arg Phe Leu Lys Glu Leu Ile Glu Leu Asp Ile  
 420 425 430

Ser Leu Arg Pro Ser Asn Phe Arg Asp Cys Gly Gln Trp Phe Arg His  
 435 440 445

Leu Leu Tyr Ala Val Thr Lys Leu Pro Gln Ile Thr Glu Ile Gly Met  
 450 455 460

Lys Arg Trp Ile Leu Pro Ala Ser Gln Glu Glu Glu Leu Glu Cys Phe  
 465 470 475 480

Asp Gln Asp Lys Lys Lys Lys His Ser Leu  
 485 490

<210> 176

<211> 136

<212> PRT

<213> Homo sapiens

<400> 176

Met His Leu Leu Ser Asp Gly Lys Glu Gly Ser Thr Tyr Lys Pro Phe  
 1 5 10 15

Gln	Glu	Ile	Ser	Ser	Ser	Ser	Lys	Ser	Gly	Arg	Lys	Gly	Ser	Lys	Ala	
			20					25					30			
Thr	Ile	Ser	Phe	Met	Ser	Ala	Val	Val	Asn	Pro	Gln	Leu	Phe	Lys	Ser	
		35					40					45				
Arg	His	Leu	Leu	Thr	Ala	Phe	Leu	Pro	Ser	Phe	Cys	Arg	Lys	Cys	Ser	
		50				55					60					
Phe	Phe	Ser	Ile	Leu	Asp	Leu	His	Ser	Ile	Ser	Glu	Leu	Arg	Gly	Leu	
	65				70					75					80	
Ala	Val	Ser	Glu	Val	Ala	Val	Phe	Cys	Ile	Gln	Ser	Leu	Gly	Trp	Glu	
				85					90					95		
Ser	Leu	Val	Leu	Arg	Ser	Leu	Ser	Ser	Phe	Leu	Leu	Ser	Ala	Leu	Glu	
		100						105					110			
Pro	Leu	Arg	Asn	Leu	Leu	Thr	Val	Glu	Val	Trp	Gly	Leu	Val	Ser	Pro	
		115					120					125				
Ser	Glu	Glu	Val	Phe	Phe	Leu	Val									
	130					135										